

AVIATION

Guide to Government Aviation Buying ...
PROCUREMENT FOR U.S. AIR POWER

SEPT. 26, 1949

WEEK

A MCGRAW-HILL PUBLICATION



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This new swept-wing fighter is the latest addition to the U. S. Navy's carrier-based striking force. Shipboard operation, high altitudes, and maneuvers demand utmost performance and dependability from its power plant.

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TEXACO Lubricants and Fuels
FOR THE AVIATION INDUSTRY

AVIATION WEEK

A Message to the Aviation Industry

By Louis Johnson

The Secretary of Defense

Getting business from National Defense is a selling job. You know far better than I that its main points are knowing what the customers want, how and where they buy, and then showing how your product fills those needs, when and where they exist.

The salesman who performs these functions, be he owner, employee or bona fide sales agent of a manufacturer, is always welcome because he renders a valuable service to the National Military Establishment.

But there are others who prostitute the profession of salesmanship, who seek to convince the small businessman that only by buying through them can he get orders from the government. To the small businessman I must emphatically say: "That is not so. There is no need for special brokers, for 15 percents for 10 percents, for even 5 percents. There is no need for anyone to intervene between small business and the government to procure government contracts."

And to those who claim to sell "influence at the right spots" I say, "We will drive you out of the National Military Establishment!" And let those who engage in questionable brokerage activities heed this warning!

Let me repeat: There is no need to have any broker between small business and the government to procure government contracts. Ignorance and uncertainty on the part of the businessman as to how he should proceed or whom he should see in the government when he is trying to sell his products have been basic cause for his remaining in the blind-alleyments of the free producer.

The Military Procurement Information Center, which I have directed the Munitions Board to establish, will help any interested businessman overcome his ignorance of how the Departments operate and dispel the fog of uncertainty as to who buys what and where. Copies of all invitations to bid, abstracts of bids, and other pertinent documents will be available at this office, except when security prohibits.

We will carry out an indoctrination campaign within the Departments to help correct any of the misconceptions regarding small business and to see to it that "brush-off" or "run-around" tactics are not used. Individual cases of alleged discrimination against a firm because of its size, if brought to the attention of the departments, will be investigated.

We are not intending to open the gates to a flood of inquiries or complaints from unscrupulous holders who have been afforded equal opportunities with their competitors. But carefully documented complaints, either individually or on a sampling basis, will be checked to determine ways and means of correcting or improving procedures.

MICRO SWITCH Improves BZ-R31 Switch

(AN 3210-1)

Molded Insert Terminal of Revised BZ-R31



View showing terminals of new design of MICRO BZ-R31 (AN3210-1) switch. Note the better wiring space - also that the live/dead separator is no longer required.

Improved MICRO BZ-R31 (AN3210-1) switch



MICRO "B" plunger switch with same new design of terminals as BZ-R31

Improved MICRO BZ-3YT (AN3214-1)



MICRO "B" control switch has also been improved with molded insert terminal construction.

NEW



MICRO . . .
First name in
precision switches

Improved form of MICRO BZ-R31 (AN3210-1) switch; full interchangeability with all MICRO BZ-R31 (AN3210-1) switches of earlier design.

MICRO SWITCH again demonstrates leadership in the design and development of precision switches for the aviation industry in the announcement of an improved design of terminals on the BZ-R31 (AN3210-1) switch.

In its new form, this improved BZ-R31 (AN3210-1) switch offers these advantages: more rugged construction of terminals with better electrical spacing and elimination of troublesome terminal separators . . . plus full interchangeability with the thousands of MICRO BZ-R31 (AN3210-1) switches of earlier design now in use.

This switch is approved by Military Board, Aircraft Components & Accessories Standards Group, in conformance with specifications AN-S-196, drawing AN3210-1. Operating characteristics are the same as the original design.

Years of cooperation between MICRO engineers and the aircraft industry have made possible the development of a great number of precision switches, actuators and housings to meet the varied and unusual demands of aircraft systems. For full information on the MICRO line of precision switches for aircraft, contact any of the offices listed.



The original MICRO BZ-R31 (AN3210-1) switch of which thousands are in use is currently has now been superseded by the new and more convenient design.

Also See: Bulletin, Design



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OLD

Vol. 51, No. 13

AVIATION
WEEK

Sept. 26, 1949

U. S. Aviation Budget Sets Peacetime High

With more than \$7 billion in fiscal 1950 funds, the industry can look to busy days.

A record peacetime aviation budget of more than \$7 billion for fiscal year 1950 for the U. S. military services promises busy days ahead for the aircraft manufacturing industry and its related equipment and accessory manufacturers.

Once upon the two biggest customers of aviation are:

• U. S. Air Force, with a maximum budget of \$5,415 million, which may be boosted another \$800 million before Congress adjourns.

• U. S. Navy, with an aviation budget of \$1,618 million already approved by Congress.

A maximum of \$5.5 billion is scheduled for procurement of military aircraft and related equipment by the two services in fiscal year 1950.

And if the House should prevail in the current House-Senate conference agreement over additional Air Force allocations that \$7.5 billion would be increased to approximately \$4.2 billion the aircraft procurement.

Analysis of the maximum 1950 fiscal year Air Force budget shows Congress approved in certain for at least a \$5,415 million total budget, which would include \$2,515 million for aircraft procurement. Of this, \$1,618 million is actually available for fiscal 1950 expenditure and contract obligations, since USAF must subtract \$855 million which are current procurement obligations.

More Money Possible—If the House succeeds in adding the additional \$800 million for USAF, it is expected up approximately \$700 million would go for aircraft procurement. Total USAF budget for aircraft procurement would be over \$2.5 billion.

Of Navy's total aviation budget of \$1,618 million, \$1,399 million is earmarked for aircraft and related procurement. From this amount, \$851,546,000 is actually available for fiscal 1950 aircraft expenditure and contract obligations, since Navy also has made of service commitments totaling \$418 million which must be subtracted.

As approved by the Senate, funds would be available to buy a total of

2512 aircraft or 34 million airborne hours would be available to buy the two services a total of:

- 2512 aircraft or 34 million airborne hours if the Senate budget wins out, or
- 3195 aircraft or 50 million airborne hours if the House budget version carries.

As Senate would get authorization to buy 1669 planes (25 million airborne hours) under the Senate budget, or 2590 planes (40.5 million airborne hours) under the House budget.

Navy is either case stands to get \$45 aircraft (9 million airborne hours).

USAF Plans—USAF staff headquarters has kept a tight lid on its detailed budget planning for the extra procurement funds it might get if the House wins the budget agreement. All but about \$50 million of it is expected to go for more fighters, light bombers and trainers.

Figures on the major portion of USAF's aircraft procurement plan for fiscal 1950 however show the following tentative distribution for planes and space:

Bombers	\$714,651,148
Fighters	\$146,096,127
Transport	\$337,598,463
Trainers	\$99,721,012
Others	\$28,611,282
Proc. Equip. Items	\$28,216,939
Special Modals	
Total	\$27,693,680
Total	\$1,480,000,000

This table leaves unallocated about \$200 million out of the \$1,650 million available under the Senate budget.

In addition to the "aircraft and related material" budget classification are other USAF budgeted equipment purchases including \$115 million for electronic equipment, \$15 million for ground material and related material, nearly \$17 million for industrial material, \$128 million for aircraft maintenance supplies and equipment, \$188 million for aircraft fuel and oil, \$25 million for special air base equipment, \$61 million for flying field and hangar equipment.

Navy Plans—Navy's plane buying program for fiscal 1950, already well established, calls for spending \$662,763,100 for:

- 608 Fighters
- 114 Attack Planes
- 31 Patrol Bombers
- 5 Transports
- 15 Helicopters
- 30 Trainers
- 843 Planes

Other Navy aviation equipment purchases which are budgeted include parts items in replacement of mechanical and radio equipment for aircraft in service; biological, photographic and miscellaneous equipment including radios, \$25 million; electronic aircraft, \$15 million; industrial installations \$1,900,000.

R and D Spending—For aviation research and development USAF proposes to spend \$225 million while Navy has budgeted \$80 million for fiscal 1950.

Maintenance and operation of aircraft (including reserve and ANG planes) calls for a USAF budget figure of \$415 million and a Navy budget figure of \$132 million.

For the Navy program is approved by the Senate falls well below the maximum annual production rate of 3000 planes recommended by the Air Coordinating Committee but as its own weight is slightly above the 38 million 38 maximum set by ACQ. But if the House budget gets approved, total aircraft (1950) and the aircraft program (1950) would be well along.

Neither the Air Force nor the Navy would the number of planes or the aircraft weight approach the 5700 planes per 60 million lb weight program by ACQ for an immediate general purpose. For the year 1950 aircraft program contemplated, aircraft totals and other material is not expected to be critical, and the introduction of new equipment at some of the plants under the healthy production of 1948 is expected to make machine tools and other critical equipment more readily available.

Powerplants, one of the causes for recent production slowdowns through fiscal 1949, are expected to fit into schedules better this year.

Estimated Government Aviation Obligations Under 1950 Fiscal Year Appropriations

1948 Grand Total—\$3,721,062,466; 1949 Grand Total—\$3,156,877,066;

1950 Grand Total—\$4,658,535,107.

Below are obligations outstanding under 1950 fiscal year budget estimates. Air Force's budget estimate totaled \$4,468,843,260 in cash and contract authorizations, the House read \$5,215,709,000, the Senate, \$5,465,987,000. Navy's budget estimate of \$1,623,487,000 in cash and contract authorizations has been reported only by the House and Senate. GE CANV budget estimate of \$15,200,000 in cash and contract authorizations, \$206,140,000 was ultimately created. ON NACA's budget estimate of \$95,200,000 in cash and contract authorizations, \$43,801,000 was ultimately created.

U. S. Air Force

	1948 (actual)	1949 (estimated)	1950 (estimated)
Aircraft and related material	\$1,580,423,025	\$777,191,629	\$1,616,080,000
Electronic equipment	49,518,875	53,288,756	115,000,000
Ground facilities and special material	11,111,712	16,876,499	35,000,000
Industrial mobilization	5,238,991	6,157,544	35,912,480
Special procurement (weapons, vehicles, etc.)	8,665,758	22,181,700	35,912,480
Maintenance, aircraft	273,268,354	373,313,584	437,489,231
Maintenance, materiel	297,355,496	356,326,405	367,877,618
Maintenance, supplies and equipment	67,188,918	135,322,343	183,304,000
Training aids and tactics	4,944,616	6,825,000	11,525,000
Planning and logistics	52,180,977	65,285,795	95,000,000
Research	15,447,975	24,866,100	31,563,600
Development	84,712,436	135,799,049	138,453,490
Operational engineering	16,900,000	30,000,000	12,500,000
Maintenance, reserve aircraft	18,378,047	30,325,575	29,883,250
Maintenance, reserve materiel	35,457,494	27,174,168	26,611,314
RDTC	3,580,785	5,039,288	11,700,000
AN National Guard maintenance and operations	33,951,616	66,177,914	94,278,712
AN equipment procurement	11,377,346	11,377,358	20,728,235
Total	\$2,866,813,595	\$2,144,864,551	\$5,555,566,086

Navy, BuAer

	1948 (actual)	1949 (estimated)	1950 (estimated)
Piloted aircraft	\$749,893,593	\$100,728,120	\$662,782,300
Unpiloted aircraft	6,960,728	11,223,079	13,000,000
Equipment for service schools	1,800,000	1,548,355	1,700,000
Industrial mobilization	4,558,145	6,491,853	9,000,000
ANAS	774,548	774,032	710,000
Aeronautical instruments	899,739	1,600,068	2,518,000
Electronic equipment	11,150,265	17,000,000	15,940,000
Aircraft operations, regular	37,200,400	35,399,734	75,573,400
Aircraft operations, reserve	11,818,181	15,293,779	15,221,000
Aircraft overhaul, regular	185,570,189	141,917,014	151,616,681
Aircraft overhaul, reserve	17,900,284	39,807,000	40,482,725
Supporting aeronautical equipment	3,819,405	16,271,102	12,247,235
Ship equipment	5,803,915	11,392,436	7,900,000
Station operations, regular	95,530,482	104,613,745	95,405,255
Station operations, reserve	7,779,946	7,623,000	5,006,790
Research and development	70,000,000	109,581,944	79,448,262
Total	\$1,156,774,579	\$2,818,616,475	\$3,174,946,742

(Continued on p. 11)

Civil Aeronautics Administration

	1948 (estimated)	1949 (estimated)	1950 (estimated)
Air navigation facilities, equipment	\$7,384,915	\$15,217,580	\$25,179,672
Technical development, supplies and material	68,859	157,644	149,623
Washington National Airport, supplies	19,820	201,173	222,640
W.N.A., equipment	25,906	42,479	26,390
W.N.A., construction	136,800	1,854,657	156,180
Individual airport program	28,060,937	71,874,686	83,874,586
Alaska airport construction	9,512,540	9,512,540	2,107,168
Air navigation development projects	90,000	90,000	9,941,440
Total	\$53,738,150	\$105,906,454	\$161,637,497

National Advisory Committee for Aeronautics

	1948 (actual)	1949 (estimated)	1950 (estimated)
Contractual services	\$2,128,965	\$2,879,000	\$2,947,100
Supplies and materials	3,154,516	3,741,100	5,200,000
Equipment	4,965,221	4,400,990	5,000,000
Printing	79,907	75,000	75,000
Construction and equipment	11,976,322	20,557,600	34,722,100
Total	\$21,799,151	\$31,395,490	\$44,570,300

Procurement Focused by Munitions Board

Aircraft committee has combined separate buying plans of the military into a tight single-service program.

A powerful but little-known body within the munitions acquisition of the National Military Establishment—the Munitions Board—has combined with a major contribution toward bringing the complicated aviation procurement picture into focus as a single inter-service program, instead of two separate and independent plans.

The committee, like two other special Munitions Board committees on electronics and petroleum, received a peak joint planning assignment and has been told to handle it within the limits of its prescribed functions.

Functional Network—Organized as a joint military board with four Air Force officers, three Navy officers and an Army officer, the committee does its work through a diffuse network of officers and civilians, and through an intricate threshold network of subcommittees and panels which attack a variety of industrial planning problems, all pointing toward establishment and revision of their basic integrated schedules for the aircraft industry.

Framework of the aircraft committee's inter-service integration of procurement is built on three basic schedules: A-Series Schedule—Procurement plan

for handling current procurement funds, revised quarterly.
PA-Series Schedule—A five-year overall planning schedule based on the basic 70 group Air Force and 14,600 plane Navy air arm concept.

MA-Series Schedule—A plan for all-out, all-branches industry mobilization.
Production Group—Best picture of how the munitions functions can be obtained from examination of the work at some of its individual subcommittees. Primary goals of these are the three subcommittees designated in the production group, which are:

Aircraft Production Unit—With all eyes at AMC headquarters, Wright-Patterson AFB, Dayton, plans schedules of materials, manpower and industrial capacity for aircraft procurement, coordinating the work of the industrial planning divisions of both Air Force and Navy Bureau of Aeronautics. This is generally an outgrowth of a similar inter-service group which functioned effectively in World War II under the War Production Board.

Subcommittee on Production Progress and Industrial Planning—A periodic group which studies its immediate and longer range planning work rate assignments for seven primary services,

ammunition, contracted relations, ground support and planes air vehicles, personnel, radio and radio, resources. Scope of these panels is apparent from the names, except for the contracted relations panel, a special problems group activated periodically to trouble shoot no problems such as labor disputes, management difficulties, etc.

Subcommittee on Petroleum—Lithium is a new name for the old wartime priorities system for industry, and an essential part of language and industrial mobilization planning. Petroleum fuel is not in large use as vigorously operated as it would be in an aircraft mobilization, but it is a currently up rating part of the Munitions Board's special committee.

A subcommittee on supply and maintenance requirements has 12 panels including aircraft and engine accessories, aircraft engines, ammunition, electronics, engines and engine parts, in structure, packaging and maintenance, periodic maintenance practices, personnel, publications and data, technical training equipment requirements, tools and ground equipment.

Technical Group—Five other subcommittees comprise the industrial group. Best known of these is probably the Subcommittee on Aeronautical Standards and related aeronautical standards group. Working with industry representatives this organization has



AMC PROCUREMENT COMMITTEE

Major Air Force contracts get final review at Air Materiel Command headquarters in the Procurement Committee, a body of various civilian government specialists which, working with the Procurement Division chiefs, investigates the buyers and their

costs on important divisions. Left to right above Col. Philip Smith, deputy chief, procurement division, L. A. Minors, L. W. Schuman, chairman, and R. W. Bane. Two other members not in photo are R. D. Lyons and F. J. Kanner.

using the new catalog and sales system for convenience of other manufacturers who apply to license USAF weapons, but have not previously sold to the Air Force.

► **First Contact**—Much of the initial contract work between AMC and a new contractor is handled through the contractors relations office, Room 910, Building 15, Area 8, Wright-Patterson AFB, at Dayton, but AMC representatives in the procurement field offices in Boston, Chicago, Dayton, Detroit, St. Louis, Los Angeles, New York, and San Francisco (sub-office can answer many questions either personally or in writing, for manufacturers at their sites, without need for direct application to headquarters. (See detailed story on procurement field offices in this issue.)

The agencies in government business dealings may object to the detail

of the USAF's responses into his past, present and potential products, his production and research facilities, available manpower and financial resources. But AMC is only trying to backstop itself against letting a contract to an unsuitable or uncooperative supplier, whose failure to deliver may throw a much larger procurement endeavor, all leveled together, off its timetable.

► **Response Expedited**—Once the manufacturer gets his status in the source of supply established, he can look forward to securing contracts in bid on supplying the products he has listed. But while he awaits he may be dropped from the list after a few conditions, because AMC is intent to keep its source list clean of inactive bidders and that is one of the reasons for adopting the new contract system.

Duplicate bid situations are posted at the contractors' release office at

AMC headquarters, and at the procurement field offices, and the contractor himself is invited to study these with our obligations. If he sees a bid situation for something he wants to make, he can then apply for a duplicate invitation to bid on that specific article.

► **Guarantee Bond**—Air Force asks bidders to post a guarantee amounting to 20% of the aggregate price of the bid, whenever the bid is \$25,000 or more. Some contractors post with AMC an annual bid bond judged sufficient to cover guarantees for contracts they support in get. Manufacturers can obtain detailed information about bid bonds at procurement field offices or at AMC headquarters.

Most large Air Force contracts are negotiated, between USAF and companies which can meet the bid requirements. But there are only a small fraction of these in the total USAF contract picture. The other, advertised contracts are the ones designed mainly for small business and for concerns not prepared to do extensive research on elaborate projects. Negotiated contracts have to be authorized by the office of the Under Secretary of the Air Force.

► **Pre-Check**—Before a contract is advertised, as negotiated, it goes through an elaborate system of checking. Initiated as a purchase request by one of the Air Force commands, it is checked by the following AMC divisions:

- Supply division checks spent parts and tool requirements.
- Budget and Fiscal division determines availability of funds.
- Industrial Planning division requires research check materials required.
- Engineering division approves drawings and specifications.
- Office of Judge Advocate approves license rights and patent claims.

Review of details, usually by an engineer and material, performs a function similar to commercial buyers, but AMC's research buyers deal in less tangible commodities. They are making

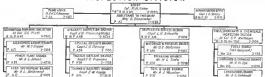
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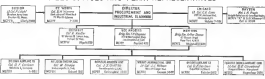
PROCUREMENT DIVISION



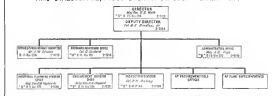
INSPECTION DIVISION



FIELD OFFICES AND PLANT REPRESENTATIVES



AMC DIRECTORATE, PROCUREMENT AND INDUSTRIAL PLANNING



regulatory agencies seeking advanced knowledge which will lead to later purchase of practical military equipment (Materiel) buying included air threatlist items such as parts, tools, photographic supplies, etc.

► **Specialist Teams**—In handling a contract, the buyer has available a team of specialists in legal and price analysis aspects who can be called in and he may also call AMC engineering specialists if he needs them.

Before final approval, contracts are reviewed by a Norman procurement committee at AMC. It is a selected team of civilian procurement experts, responsible only to the top director. The committee automatically reviews every contract of \$100,000 or more, and may look at any smaller contract if it wishes.

In fiscal 1949, the committee reviewed approximately 2500 contracts. Contracts of \$100,000 to \$1 million must be approved by the Procurement Division chief (Gen Sheppard). Contracts of \$1 million and more must be approved by the director of Procurement and Industrial Mobilization (Gen Clark when he succeeds Gen Wolfe).

► **Active Sugging**—After the buyer completes the contract he continues to follow it throughout its life. He makes subsequent decisions as to allowable deviations from specifications and contract changes. He follows it through every two hours in the field office, on how problems are solved are met. He decides when government may exercise its rights under the latest defect contract clause,

and finally he is expected to handle termination proceedings.

A continuing training program for buyers, with periodic lectures and study on various phases of procurement, is conducted by Gen. Sheppard with improvement in buying techniques this year.

The Procurement Committee has prepared interpretations and policies for the buying guidance. Another method of training and guidance is to permit different buyers to sit in with the committee at contract review, participating in its minutes and consideration of individual contract problems.

► **Basic Agreements**—A new system of basic agreements with contractors who are regular USARF suppliers is another important shortcut which AMC is preparing (Aviation Week, Aug. 27). Briefly, a basic agreement is a contract whose clauses are made applicable to all other contracts between the major business and the Air Force for a specified period. It eliminates many standard clauses in the other contracts, saving time and money for both parties.

► **Proper Report**—Other steps toward simplifying and implementing procurement procedure in the past year cited by AMC include:

- Changing buyer's authority to make a proposal instead of mandatory that he consult with advisors outside his own office on matters of price and final clearance.
- Establishment of simplified contract forms for smaller procurements.
- Expediting coordination and approval from the Deputy Chief of Staff, Air Force.

Inquiry Service

ANYONE Who will answer any queries about government procurement programs, distribution in this area, or will refer your questions to the proper government agency charged with supplying the information requested. Such specific inquiries to Procurement Editor, Aviation Week, 1774 National Press Bldg., Washington 4, D. C.

► **Shortening flow time** required for the Under Secretary to pass an opinion on contracts (This was done by the Under Secretary himself in the closing weeks of fiscal 1949, when he established his desk at AMC headquarters and made himself available for quick access to these contracts).

► **Clauses were inserted** in prime contracts obligating the prime contractor to seek to place subcontracts with small plants.

Aluminum Pile

Mentioned here may take aluminum from its list of material not recommended for purchase last April under study, making the metal available to be purchased for stockpiling.

Aluminum industry spokesmen say the board can acquire 150 million lb. of the metal for the government stockpile in fiscal 1950 without adverse effect to the domestic economy.

Amount available for stockpiling would include 60 million lb. already agreed to by the General Services Administration. Of this amount, 24 million lb. would come from Reynolds Metal Co. on lots of metal on a government-owned plant which it leases, and 36 million lb. from Pennsylvania Metals Corp. in part payment for a government-owned plant it has purchased.

New Contract Form

General Services Administration has revised the government procurement contract form into a common style which will be used by contractors in both competitive and negotiated bid settings.

New form will apply to all government contracts, civil and military. It carries a clause which the contractor must sign stating that no agent has been secured for a commission or percentage fee to help secure the contract. However, it does make provision for bonus fee employees, noncontracted agents and representatives who are maintained by the contractor for the purpose of securing business.

A handy guide to Alloy Steels for aircraft applications



Now for study reference are listed the various grades of USS Carilloy commercial alloy steels available for use in aircraft and aircraft parts.

The grades shown for each application or part are not necessarily the only grades suited for a particular purpose, but are in that those grades most commonly used prior to 1941, together with some of the new alloy steels developed during the war.

It is obvious that design, economy, machining facilities, availability of heat treating equipment, and other factors

will enter into your final selection of the alloy grade for your particular purpose. To get optimum results from these steels, we suggest that you obtain expert advice both in selecting and applying them. Thus we are pleased to furnish.

Our staff of service men/berthmen is always ready to study individual problems and to assist you with practical recommendations that you will find mutually helpful not only in determining what grade of USS Carilloy will do the best job for you, but also in showing how it can be handled efficiently in your shop.

	1018	1020	1022	1024	1026	1028	1030	1032	1034	1036	1038	1040	1042	1044	1046	1048	1050	1052	1054	1056	1058	1060	1062	1064	1066	1068	1070	1072	1074	1076	1078	1080	1082	1084	1086	1088	1090	1092	1094	1096	1098	1100	1102	1104	1106	1108	1110	1112	1114	1116	1118	1120	1122	1124	1126	1128	1130	1132	1134	1136	1138	1140	1142	1144	1146	1148	1150	1152	1154	1156	1158	1160	1162	1164	1166	1168	1170	1172	1174	1176	1178	1180	1182	1184	1186	1188	1190	1192	1194	1196	1198	1200	1202	1204	1206	1208	1210	1212	1214	1216	1218	1220	1222	1224	1226	1228	1230	1232	1234	1236	1238	1240	1242	1244	1246	1248	1250	1252	1254	1256	1258	1260	1262	1264	1266	1268	1270	1272	1274	1276	1278	1280	1282	1284	1286	1288	1290	1292	1294	1296	1298	1300	1302	1304	1306	1308	1310	1312	1314	1316	1318	1320	1322	1324	1326	1328	1330	1332	1334	1336	1338	1340	1342	1344	1346	1348	1350	1352	1354	1356	1358	1360	1362	1364	1366	1368	1370	1372	1374	1376	1378	1380	1382	1384	1386	1388	1390	1392	1394	1396	1398	1400	1402	1404	1406	1408	1410	1412	1414	1416	1418	1420	1422	1424	1426	1428	1430	1432	1434	1436	1438	1440	1442	1444	1446	1448	1450	1452	1454	1456	1458	1460	1462	1464	1466	1468	1470	1472	1474	1476	1478	1480	1482	1484	1486	1488	1490	1492	1494	1496	1498	1500	1502	1504	1506	1508	1510	1512	1514	1516	1518	1520	1522	1524	1526	1528	1530	1532	1534	1536	1538	1540	1542	1544	1546	1548	1550	1552	1554	1556	1558	1560	1562	1564	1566	1568	1570	1572	1574	1576	1578	1580	1582	1584	1586	1588	1590	1592	1594	1596	1598	1600	1602	1604	1606	1608	1610	1612	1614	1616	1618	1620	1622	1624	1626	1628	1630	1632	1634	1636	1638	1640	1642	1644	1646	1648	1650	1652	1654	1656	1658	1660	1662	1664	1666	1668	1670	1672	1674	1676	1678	1680	1682	1684	1686	1688	1690	1692	1694	1696	1698	1700	1702	1704	1706	1708	1710	1712	1714	1716	1718	1720	1722	1724	1726	1728	1730	1732	1734	1736	1738	1740	1742	1744	1746	1748	1750	1752	1754	1756	1758	1760	1762	1764	1766	1768	1770	1772	1774	1776	1778	1780	1782	1784	1786	1788	1790	1792	1794	1796	1798	1800	1802	1804	1806	1808	1810	1812	1814	1816	1818	1820	1822	1824	1826	1828	1830	1832	1834	1836	1838	1840	1842	1844	1846	1848	1850	1852	1854	1856	1858	1860	1862	1864	1866	1868	1870	1872	1874	1876	1878	1880	1882	1884	1886	1888	1890	1892	1894	1896	1898	1900	1902	1904	1906	1908	1910	1912	1914	1916	1918	1920	1922	1924	1926	1928	1930	1932	1934	1936	1938	1940	1942	1944	1946	1948	1950	1952	1954	1956	1958	1960	1962	1964	1966	1968	1970	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	2020	2022	2024	2026	2028	2030	2032	2034	2036	2038	2040	2042	2044	2046	2048	2050	2052	2054	2056	2058	2060	2062	2064	2066	2068	2070	2072	2074	2076	2078	2080	2082	2084	2086	2088	2090	2092	2094	2096	2098	2100	2102	2104	2106	2108	2110	2112	2114	2116	2118	2120	2122	2124	2126	2128	2130	2132	2134	2136	2138	2140	2142	2144	2146	2148	2150	2152	2154	2156	2158	2160	2162	2164	2166	2168	2170	2172	2174	2176	2178	2180	2182	2184	2186	2188	2190	2192	2194	2196	2198	2200	2202	2204	2206	2208	2210	2212	2214	2216	2218	2220	2222	2224	2226	2228	2230	2232	2234	2236	2238	2240	2242	2244	2246	2248	2250	2252	2254	2256	2258	2260	2262	2264	2266	2268	2270	2272	2274	2276	2278	2280	2282	2284	2286	2288	2290	2292	2294	2296	2298	2300	2302	2304	2306	2308	2310	2312	2314	2316	2318	2320	2322	2324	2326	2328	2330	2332	2334	2336	2338	2340	2342	2344	2346	2348	2350	2352	2354	2356	2358	2360	2362	2364	2366	2368	2370	2372	2374	2376	2378	2380	2382	2384	2386	2388	2390	2392	2394	2396	2398	2400	2402	2404	2406	2408	2410	2412	2414	2416	2418	2420	2422	2424	2426	2428	2430	2432	2434	2436	2438	2440	2442	2444	2446	2448	2450	2452	2454	2456	2458	2460	2462	2464	2466	2468	2470	2472	2474	2476	2478	2480	2482	2484	2486	2488	2490	2492	2494	2496	2498	2500	2502	2504	2506	2508	2510	2512	2514	2516	2518	2520	2522	2524	2526	2528	2530	2532	2534	2536	2538	2540	2542	2544	2546	2548	2550	2552	2554	2556	2558	2560	2562	2564	2566	2568	2570	2572	2574	2576	2578	2580	2582	2584	2586	2588	2590	2592	2594	2596	2598	2600	2602	2604	2606	2608	2610	2612	2614	2616	2618	2620	2622	2624	2626	2628	2630	2632	2634	2636	2638	2640	2642	2644	2646	2648	2650	2652	2654	2656	2658	2660	2662	2664	2666	2668	2670	2672	2674	2676	2678	2680	2682	2684	2686	2688	2690	2692	2694	2696	2698	2700	2702	2704	2706	2708	2710	2712	2714	2716	2718	2720	2722	2724	2726	2728	2730	2732	2734	2736	2738	2740	2742	2744	2746	2748	2750	2752	2754	2756	2758	2760	2762	2764	2766	2768	2770	2772	2774	2776	2778	2780	2782	2784	2786	2788	2790	2792	2794	2796	2798	2800	2802	2804	2806	2808	2810	2812	2814	2816	2818	2820	2822	2824	2826	2828	2830	2832	2834	2836	2838	2840	2842	2844	2846	2848	2850	2852	2854	2856	2858	2860	2862	2864	2866	2868	2870	2872	2874	2876	2878	2880	2882	2884	2886	2888	2890	2892	2894	2896	2898	2900	2902	2904	2906	2908	2910	2912	2914	2916	2918	2920	2922	2924	2926	2928	2930	2932	2934	2936	2938	2940	2942	2944	2946	2948	2950	2952	2954	2956	2958	2960	2962	2964	2966	2968	2970	2972	2974	2976	2978	2980	2982	2984	2986	2988	2990	2992	2994	2996	2998	3000	3002	3004	3006	3008	3010	3012	3014	3016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TANK LIQUID LEVELS POSITIVELY CONTROLLED

and
here's
how...

PARKER LEVEL CONTROL VALVE for

- Single Point Fueling
- Underwing Fueling
- Fuel Transfer Systems
- Pressurized Drop Tonks

The PARKER valve accurately controls fuel tank levels. Its balanced pilot valve which operates independently of flow rates or pressures. Activated by internal float. Offered in both top-filling and bottom-filling models.

Compact—Light weight— $1\frac{1}{2}$ " size weighs 15 lb.
 $1\frac{1}{2}$ "— $2\frac{1}{2}$ " size weighs 1 lb.
Low Pressure Drop— $\frac{1}{2}$ " size, 0.8 psi. at 30 gpm.
 $1\frac{1}{2}$ " size 0.3 psi. at 30 gpm., 3.0 psi. at 300 gpm.
Suitable for high pressure systems—0 to 50 psi.
75 psi proof

Material—Temperature range: -62° to +160° F.

Positive shut-off and responding action.

Thermal relief protection.

Interchangeable part adaptions.

Designed for easy maintenance.

Meets military specifications.

Write today for Bulletin No. 130

Parker

TUBE FITTINGS • VALVES



1 1/2" bottom-filling valve as used on Republic F-84 Thunderjet



1/2" top-filling valve with manual top-filling adapter as used on McDonnell F-24 Phantom

Other Parker Aircraft Products

Tube Fittings—All standard and flexible types.

Fuel Valves—check-off, electric, underwing, non-driven.

Hydraulic Valves—check, relief, solenoid, shuttle etc.

Air and Hydraulic Valves, Solenoid Check Valves.

Engine Pressure, Drainage, Drain Cocks.

Drainage of Approved Components

The Parker Appliance Company

17325 South Avenue, Channahon, IL, Ohio
8017 West Century Blvd., Los Angeles 45, Cal.

Procurement Tips to Manufacturers Do...

- Register your plant facilities with both the Air Force and the Navy, using new VMC cataloging system and Navy industrial planning program
- Visit regularly your nearest regional Air Force procurement field office, and Navy district representative office for late procurement information
- Assign one key executive in your plant to become a specialist on military procurement
- Investigate annual bid bond procedure to save time and money if you expect to become a regular bidder on Air Force and Navy contracts
- Get your company and its products listed with local Air Force and Navy installations in the contracting officer or commanding officer's local procurement source list, if you want small local procurement contracts. Separate listings are required at each installation
- Let the big Air Force and Navy prime contractors in your area know about your facilities and interest in supplying the armed services. Subcontracting more and more is becoming an important part of total procurement, and prime contractors are looking for additional component manufacturers
- Find out from your postmaster whether your plant is located in one of the "distressed employment" areas. If it is, your plant has a special advantage in obtaining military procurement contracts
- Require a thorough study of your bid from a legal standpoint, reading and re-reading the fine print and specifications, and particularly looking at patent clauses, before you submit it
- Make a careful engineering recheck of your cost estimate to be sure you have included every specification required in the bid invitation. You can't back out without penalty once the bid is submitted
- Consult at Wright Field or Washington with Air Force or Navy engineers who know the product, if you want to bid on a product you have never made before. If in doubt, submit samples
- Examine the services' buying on non-aircraft standard items. They are in the market for large quantities of standard hardware, machine tools, housekeeping equipment and many other non-aircraft products
- Know something about the latest trends in research and development in military aviation and related fields as a guide to production orders of future years
- Follow the practice of making a written record on your dealings with the government. Confirm your verbal arrangements with the government in writing and get written confirmation of government verbal agreements with you
- Investigate the possibility of sharing a Dayton or Washington representative with other non-competing manufacturers. A competent, trustworthy representative can save valuable time in follow-up at either place, if your anticipated volume is large enough to warrant his part-time employment
- Find out about license-or-licensee programs which are part of the industrial mobilization joint plan of USAF and Navy. Perhaps your plant might fit into this picture also

Don't...

- Be afraid to go to the top officials for red tape relief if necessary. Defense Secretary Johnson has pledged a national military establishment policy to investigate any "brush-off" and "run-around" tactics against small business

(Procurement Tips continued on page 32)

Procurement Tips to Manufacturers

(Continued from page 22)

Don't . . .

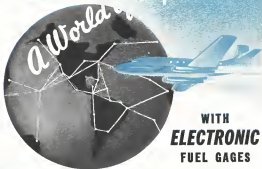
- Expect contract relations with the government through either prime or subcontract to be as simple as those with another individual or firm. There are always extra checks and balances in government dealings which experience has indicated are necessary.
- Expect the services to set you up on a manufacture on the basis of your inventions or ideas. Research and development contracts are let for ideas and inventions, but the services want a manufacturer who has productive capacity and know-how promptly available for its production contracts.
- Ask for any special favors from contracting officials. They and you are inviting serious trouble: you get unwarranted preferred treatment over your competitors, who are almost sure to find out and squeal loud and clear in the right places.
- Wait for the news of your plant's approval as a source of supply to filter down to the prime contractors in your area. As soon as you get approval get the word around quick to any big plants in your area which might have subcontracts to let.
- Be discouraged when you don't get a contract immediately as a result of your first visit to the Air Force or Navy. No contracts are let until after manufacturers comply with preliminary requirements and submit to a thorough check on plant facilities, financial status, loyalty, etc.
- Gripe unnecessarily to the working level procurement officials about the red tape restrictions. Chances are there are more familiar than you with the difficulties caused by over-complication of regulation, and would have done something about it already, if they could.
- Thank procurement officers are going to take the shortcuts in procedure that they sometimes have to take in war emergency. Experience has shown that when the longer regular procedures are followed it usually protects both parties better and saves the taxpayer money.
- Let your contract negotiation be overhanging in a basket on somebody's desk. If it seems to be at an unnecessary standstill, follow up at the place where it was last heard from, and ask for a progress report to get it moving again.
- Be a wide-eyed innocent in your government contract dealings, but don't get unnecessarily hard-boiled. The Air Force and the Navy are not out to swindle you but they expect you to protect your own interests as in any business transaction.
- Get yourself mixed up in any shady, "under-the-table" transactions. The FBI, the General Accounting Office, and Congressional investigations can do irreparable damage overnight to a previously reputable firm that makes a false step.
- Wear a path between your plant and Washington and Wright Field. Plan your trips to these spots so you can limit their number and expense, and take full advantage of the services of the field offices of both Air Force and Navy.
- Worry too seriously about government recapture of legitimate profits through renegotiation. Aim of the 1948 Renegotiation Act is to curtail excessive profits but both services know that private industry is entitled to a fair profit, and the Secretary of National Defense has authority to exempt contractors where provisions of the act are onerous or complicate unnecessarily the transaction involved.

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How Naval Air Procurement Works

Bureau of Aeronautics in Washington handles purchases of airplanes, sets standard for other Navy buying.

Naval Aviation's procurement program for fiscal 1950 centers primarily at the Bureau of Aeronautics in Washington and will be directed by the three principal efforts of Baker's research, development, design and engineering and material and services, two years.

\$1,618,667,000, and includes 5,776-586,000 in contract authorizations. Navy plans to buy 588 fighters, 134 attack planes, 11 patrol bombers, 9 transports, 15 helicopters and 10 trainers.

This year's procurement will account Naval Aviation's emphasis on approved plans, with an estimated 68

percent of its fiscal 1950 buying set aside for jet aircraft.

R and D—Research and development fund cuts will force Baker to shun its development of the advanced aircraft prototypes and delay development of new ideas.

Navy has more than nine times the amount that its aviation budget is too low, and will force a rethink in airplanes from 14,514 only this year to 12,568 by Feb. 1, 1950. All this means that Baker will try to do a harder bargain in the contracts which it will negotiate with industry during the coming year.

Setup—The three division, leading Naval Aviation procurement function in this way.

Research and Development: This division, headed by Rear Admiral C. M. Belcher, is in charge of all experimental programs. R and D contracts fall into two groups—research contracts (those with no end product in sight) and development contracts (those which call for actual production of an end product).

Design and Engineering: On development contracts, this division, under Rear Admiral Lloyd Henson, leads the program of specific items required for large scale production. Each item acts as an aircraft, electronic equipment, powerplant, and aircraft component is allocated to a "desk" which develops individual requirements.

Material and Services: When the requirements are decided, they pass through the Chief of Naval Operations to the Division, under Rear Admiral W. J. Johnson, which sets up the actual procurement program in the form of contracts. It is the procurement division that eventually becomes a contract.

Bureau of Aeronautics at Navy headquarters in Washington does all the



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buying of Naval Aviation's planes, propellers and instruments, including repair and maintenance equipment for the entire fleet. This means that most of the buying is done through negotiated contracts.

Here's why: Baker's procurement of such items as airplanes, engines and propellers is usually based on recommendations of its specialist officers, who indicate which full requirements that the list of vendors who can comply is considerably narrowed. Through the years, airplane manufacturers have specialized in various types of craft, such as fighters, bombers, attack planes and transport aircraft. When Baker opens

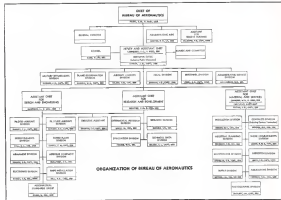
a competition for a new aircraft, therefore, it selects bids from those manufacturers with which it has had previous dealings in buying that particular type.

► **Incentive Plan**—Navy's airplane contracts are all handled under an incentive plan, which works this way: Baker and the manufacturer agree on the best negotiable price, which includes a standard rate of profit. If the manufacturer finds it costs more to build his plane than the original price, the difference is split between the Navy and the contractor.

But if the plane was built at less than the original specified cost, the manufacturer is allowed 20 percent of

the difference as added profit. Navy, of course, benefits from the other 80 percent.

Early part of this time, Naval Aviation, through a program, initiated by the Secretary of Navy, Chief of Naval Department, and the Joint Chiefs of Staff, was planning an expansion program with a target of 14,500 planes by the middle of this year. To do this, according to the plan, 3000 planes were taken out of storage pouch. These included Curtiss Halliborn, Grumman Avengers, Vought Corsairs and Grumman Hellcats. Now the storage pool is almost completely depleted and replacement of these craft will be one of the



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by factors in Navy's 1955-56 program
► **Pulse Types**—Navy's fighter contracts this year will be split between Convair's F4U (F4F) and Chance Vought's Corsair (F4U). Douglas's Supermarine will probably form the bulk of Navy's attack planes, along with North American AF-15 and the Convair AF series. Patrol planes will be latest version of the Lockheed Neptune (P-4) series and Convair F-11F flying boats. Both of the fighters will be F-105's SRP-11 with some SRP-2 aircraft transport types.

This year the trend is toward heavier and more expensive aircraft, with an average weight of 9123 lb. Average cost is now for a jet aircraft \$379,517, compared to \$204,914 for a piston-powered plane.

Joint Purchases

Economies through joint Air-Navy purchasing of major items of military aviation equipment are being speeded by action of the new Department of Defense Management Committee, headed by Gen. Joseph T. McNamara, former Air Materiel Command head.

The armed services are slowly pooling their requirements for common items to the extent of 85 percent of their total buying with prospects doubt that much more joint purchasing can be done on the remaining 15 percent, mostly single-service requirements.

While purchases of aircraft engines, propellers and airframes are divided between the Air Force and Navy because of special requirements of the two services, a system of co-operation has been worked out between the services to eliminate duplication.

Part and all requirements of all three services are purchased through the Armed Services Petroleum Purchasing Agency, at Room 11005, Temporary Bldg. 4, Washington 25.

Air Force Procurement Division, Wright Patterson AFB, Dayton, is charged with purchasing all photographic equipment except medical X-ray film, for all the services.

Medical supplies for all three services are bought by the Armed Services Medical Procurement Agency, 14 South St., Brooklyn 1, N. Y.

Navy Purchasing Office 110, and Construction Act., Washington 25, has been designated to purchase hard tools, edge tools, tools, tools, measuring tools and similar items for all three services.

Complete details as to government assignments among the services are listed in "Index of Military Purchasing Offices" which has been prepared by the Manhattan Board. Copies can be obtained from that agency at Washington 25, D. C.



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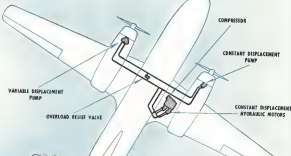
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A Primer on Military Procurement Laws

Here are the answers to questions raised by current Congressional legislation affecting the services.

A military contractor who seeks to manufacture for the USAF or the Navy without guidance on how best to govern armed services procurement is like a pilot with no instruments. He should never fly.

Boundaries for procurement activities of the Department of Defense and for the firms with which it deals are laid out either literally, in most cases, or the laws enacted by Congress. But the boundaries, restrictions, to be observed, with penalties for non-compliance.

That is an **AVIATION WEEK** roundup of the most essential provisions of military procurement laws.

Site of Authority—Legislation (HR 1477) passed by the House and Senate and now before a joint conference committee would set an authorized amount of \$4,000,000 or 25,000 aircraft for the USAF. Choice is left to the Air Force Secretary as to which method is more appropriate to fulfill requirements.

The estimate, however, under no declaration of policy is to which—of over-the authorized ceiling is to be met. One aviation leader commented: "A ceiling of 1 million planes might as well have been laid down, since there is no indication that the authorized strength is a goal to be worked toward and accomplished." Under the 1970 fiscal year budget—yet not finally decided—USAF's strength probably will approximate 6000 planes.

A July 19, 1969 Act (PL 91-757, 94th Cong.) set the authorized strength of the Navy at 15,000 planes. A 1942 statute (PL 612, 77th Cong.) authorized the Navy to have 200 light aircraft. Over the current fiscal year, the Navy plans acquisition of 5,562 regular and 2,185 Naval Reserve planes. The regular Navy plans to operate 16 light-turbine aircraft and the Reserve, 16.

How Many Plans Available?—There is no law on the books to direct or guide the Secretary for Air, Secretary for Defense, Bureau of the Budget (Department, the President) and the Congressional appropriations committee in allowing funds available for new aircraft. It is decided each year, first tentatively by the administration set up as the advice of the Joint Chiefs of Staff, and finally by Congress in allowing funds.

House version of legislation affecting the authorized Air Force strength (HR 1477) would allow USAF to purchase up to 5200 new planes or 42,500 airframe tons annually. Senate, however, stuck out the provision with the explanation that this should be determined from year to year by the appropriations committee.

Long-Range Procurement—Long-range aircraft procurement programs have been favorably looked upon by Congress since war's end and probably will eventually have a longer life.

House version of the Air Force Act (House bill HR 1477) provides that appropriations for plane procurement and research and development shall be non-available until expended.

Senate version provides that funds appropriated for research and development must be available until expended. However, the appropriations act provides to the contrary.

The 1970 fiscal year Department of Defense appropriation bill (HR 6146), now before a joint House-Senate conference committee for final Congressional action, stipulates that funds for Naval and Air Force plane procurement and research and development shall remain available until expended.

Major Plans Procurement—Recently enacted Unification Act (P L 91, 81st Cong.) clearly gives the Secretary of Defense authority to consolidate or coordinate the aircraft procurement and research and development programs of USAF and the Navy.

Budgetary Implications—The Department did not in the act would be conducive to that. It can be broken down by aircraft in such of the three major legislative areas as a consequence of the Department of Defense.

Competitive Bids or Negotiated Contracts—The 1947 Procurement Act (P L 413, 80th Cong.) provides that advertisements for bids be published for the purchase of aircraft, specifications and instructions shall permit "full and free competition." "All bids shall be publicly opened at the time and place stated in the advertisement," and award shall be made "to that responsible bidder whose bid, conforming to the invitation for bids, will be most advantageous to the government, price and other factors considered."

(b) "The agency head determines that the purchase or contract is for experimental, developmental, or research work, or for the manufacture or furnishing of supplies for experimental, development, research, or test."

(4) "For supplies or services as to which the agency head determines that the character, significance, or complexity of the work is such that the purchase or contract should not be publicly disclosed."

(5) "For equipment which the agency head determines to be technical equipment, and as to which the determination of the purchase or contract, without advertising is necessary in order to assure standardization of equipment and interchangeability of parts and that such standardization and interchangeability is necessary and in the public interest."

(6) "The supplies of a technical or specialized nature requiring a substantial initial investment or an extended period of preparation for manufacture, as determined by the agency head, which he determines that advertising and competitive bidding may require duplication of investment or preparation already made, or will unduly delay procurement of such supplies."

(7) "The agency head determines that it is in the interest of the national defense that any plant, facility, or any product, manufacturer, or other supplier be made or kept available for future use in the event of a national emergency, or that the interest of national defense in the use of such an emergency, or of the national defense in maintaining active equipment, research and development, are otherwise affected."

Competitive Bids—The 1947 Procurement Act (P L 413, 80th Cong.) provides that advertisements for bids be published for the purchase of aircraft, specifications and instructions shall permit "full and free competition." "All bids shall be publicly opened at the time and place stated in the advertisement," and award shall be made "to that responsible bidder whose bid, conforming to the invitation for bids, will be most advantageous to the government, price and other factors considered."

All bids will be opened. If it is considered "in the public interest to do so," a negotiated contract may first be entered into provided that its price is lower than the selected competitive bid and the lowest negotiated price offered by a responsible bidder.

Should evidence of collusion in bidding be ascertained, the Department is

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directed to offer the case to the Justice Department for possible enforcement action.

► **Cost-plus Contracting?**—The 1947 Procurement Act (P. L. 413, 80th Cong.) bans cost-plus-a-percentage-of-cost contracts and sets a maximum fee of 10 percent (15 percent on research and development contracts) on cost-plus-fee contracts.

Under cost-plus-fee contracts, the contractor is required to notify the agency of any cost-plus-fee subcontracts or any fixed-price subcontracts of over \$25,000. He is also to let Procurement agencies into the "books" to spot the plants and to audit the books and records of the prime contractor and of any subcontractor working on a cost-plus-fee for him.

► **Agency for Obtaining Business?**—There is no law barring engagement of brokers or agents to secure highly competitively bid business. Their fees, commissions, or salaries can be charged against the contract obtained.

The law aimed at eliminating middlemen in contract negotiation is flimsy. It (P. L. 413, 80th Cong.) requires that each negotiated contract carry a stipulation that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the contractor for the purpose of securing business. For violation, the contract may be annulled "with or without liability" on the order of the court derived from the contract price. The law also sets a "bribe agency" but permits a "bona fide established selling agency."

Legislation now pending in Congress (S. 2371) would clamp down harder on middle men. It would require contractors to file extensive data on all persons who had directly or indirectly represented the contractor in connection with the obtaining of government business. Persons who for more than two years had served as officer, partner, or employee of the contractor would be exempted.

► **Ex-Government Officials as Firm Representatives?**—A 1946 act (P. L. 775, 80th Cong.) bans all former government employees, for a period of two years, from acting as counsel, attorney, or agent for prosecuting any claims against the U. S. involving matters with which they were "directly connected or personally involved" while in government service, under penalty of \$10,000 fine or imprisonment, \$10,000 fine, or both.

Legality of former government employees prosecuting claims against the U. S., for a two-year period, involving

matters with which they had no connection while in government service will be a question after June 30, 1948—unless Congress acts in the meantime.

As 1947 act (U.S.C., Title 5, Sec. 95) forbids hiring government employees for a two-year period, from prosecuting any claim against the U. S. This would make it illegal, for example, for a Department of Agriculture employee to represent an ex-firm in a claim against the U. S. for two years after severance from his government post. Part of the law was suspended for the period from May 27, 1946 to June 30, 1949 by act of Congress (P. L. 793, 80th Cong., P. L. 137, 80th Cong.) limiting its application only to matters with which the employee was directly connected while in government service. The 1947 act is a civil statute. Legal question which arose after Jan. 1950 is whether (1) the 1948 act was only intended to make prosecution of claims by ex-government employees an nullity, or (2) it was intended to impose a criminal offense subject to criminal penalty, or whether (2) it was intended to supersede the 1947 act.

► **Advance Payments?**—The 1947 Procurement Act (P. L. 413, 80th Cong.) permits the procuring agency to make advance payments on negotiated contracts "only upon adequate security." It is provided that terms "may" include security in the form of a cash payment in all or in part, upon the property contracted for, upon the credit balance, or in special account in which such payments may be deposited and upon such of the material and other property acquired for performance of the contract. No provision is made for advance payment on competitively bid contracts.

► **Labor Rates on Defense Contracts?**—All contracts let over \$10,000 let by the Department of Defense are subject to the Walsh-Healey Act requirement that maximum 44-hour week for workers, when longer hours are compensated by an increase in the rate of pay, be paid. Such contracts are also subject to the act's requirement for a maximum 44-hour week for workers, when longer hours are compensated by an increase in the rate of pay, be paid. Such contracts are also subject to the act's requirement for a maximum 44-hour week for workers, when longer hours are compensated by an increase in the rate of pay, be paid.

► **Profits on Aircraft Contracts?**—The provision of the 1914 Veterans Treatment Act setting a profit ceiling of 12 percent on both the fixed and variable cost contracts is still on the books. It has been suspended under the war and postwar years by a series of acts. The 1959 fiscal year Department of De-

fense appropriation bill will send it for the cabinet year. However, several attempts in Congress to repeal the law taken over the past few years have failed. This is largely because the repealers now handle legislation with any other provision regarding the act's requirement that 10 percent of Naval aircraft be manufactured in government plants, serving as safeguards on anti-Protestantism. Congressmen—protesting the only government aircraft factory at Philadelphia—have been largely unsuccessful for blocking repeal of both provisions. Previous opposing government manufacturers of aircraft have been kept as busy as they could by presidential direction.

The wartime method of leading profits by authorizing the department to negotiate contracts, was terminated by the 1948 Supplemental National Defense Appropriation Act (P. L. 447, 80th Cong.) Under this, all contracts and subcontracts over \$1000 are subject to negotiation of fixed contracts of a contractor for the fiscal year aggregate over \$100,000.

The negotiation authority will be continued by the 1950 fiscal year. The termination of Defense appropriation bill Under the Senate version of the new act, as in conference, only negotiated contracts are subject to negotiation.

► **Contract Termination?**—In the absence of law on the subject, the Department of Defense has a free hand to stipulate settlement without terms in contracts. Settlements are subject to review and possible rescission by the General Accounting Office. The intent of GAO's authority to investigate and overrule settlement determinations by the contract.

Without action, the aircraft industry has urged protective legislation (S. 499) drawn along the lines of the new defense 1946 Contract Termination Act without business. This would authorize negotiated contract settlement and permit GAO to suspend settlement cases only in the event of trouble. At present, contractors left uncertain as to whether GAO will decide to reopen a settlement.

How to Sell Under ERP

Economic Cooperation Administration has established an Office of Small Business to aid small independent enterprises of the U. S. who are seeking overseas business under the European Recovery Program. Manufacturers wishing to learn more about this field should communicate with the Special Assistant to the Administrator for Small Business, ECA, 800 Connecticut Ave., N.W., Washington 25, D. C.



lubricated and sealed for life . . .

ANG Gear units are furnished in all four models lubricated and sealed for life to eliminate the maintenance problem. The use of hardened alloy steel bevel gears and precision ball bearings guarantee long trouble-free service.

ANG Gear units may be used for either constant operation or for power transmission. Present models are typically rated to transmit 1/2 H.P. at 1800 R.P.M. for 2500 hours continuous duty. All models now rated 500 peak power ultimate start torque.

These standardized units will save you money.

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Greater proportion of trade under ECA is from businessmen to businessmen. The foreign businessmen purchase their government the dollar equivalent in his national currency (franc, franc, guilder, etc.), for goods to be bought, and ECA dollars allotted to his country are then used to purchase the commodities he wants from American business firms.

► **Government Purchases**—Foreign government missions and agencies under their supervision also buy certain commodities, and in a few specific instances U.S. government agencies do the buying for some foreign countries. (For example Bureau of Federal Supply, 715 and D Sts., S. W., Washington 25, D. C., is purchasing Korea's requirements.)

ECA officials suggest a thorough preliminary analysis of the product to be sold, to determine whether it is a non-luxury item which will be in volume demand in the ECA countries.

► **Information Source**—Sources of information helpful in making such an analysis include the 42 field offices of the Department of Commerce in principal cities throughout the country, foreign trade department of the Chamber of Commerce in the manufacturer's area, American export/import trade associations, foreign trade publications and foreign department of the manufacturer's bank.

ECA officials warn against failure of a "one-shot" idea often in foreign business and urge a continuous sales program as the only logical way of expanding sales volume. Companies entering the field for the first time may choose to handle sales directly to European importers, as well indirectly through American export agents, export merchants and commission export managers who work for several non-competing manufacturers.

Under the ECA guaranty program American manufacturers are permitted to establish plants in Marshall Plan countries or to make arrangements for a foreign manufacturer to make their products overseas, with a contract of guaranty from ECA. This contract guarantees the convertibility of foreign currency into U.S. dollars for the amount of dollars invested, plus actual savings or profits on the investment to the extent of 75 percent earned during the guaranty period up to Apr. 3, 1963.

No guaranty is given, however, for arbitrary business risks, fluctuations in rate of exchange or political instability. Manufacturers interested in establishing a foreign manufacturing outlet under this plan are invited to write to the Director of Commerce and Loans at the ECA Washington address cited above, for additional information applying to their specific problems.

Torrington Needle Bearings

handle heavy loads in minimum space in Republic F-84 Thunderjets



Higher flying speeds mean greater bearing loads. The Republic Aviation Corporation found in developing the F-84 Thunderjet, the 600 mph fighter in Torrington Needle Bearings, required the use of performance and life expectancy needed for its important assemblies.



Roller or pin application of Needle Bearings demands full contact of needle rollers within. These rollers at Torrington produce greater load capacity than any other roller design in a compact size. Close tolerances assure maximum play and speed response in the controls.



Little room for controls is left by a large air scoop in front and a long exhaust tube in back. Compact design of each unit in the top is the result of Torrington Needle Bearings secured in large shafts in which small bearings providing great strength in minimum space.



Type 4F seal design Needle Bearings are used in the exhaust scoop control. Seal does the effective long life seal making bearing that provides accurate self-alignment. After a 200,000 cycle test this seal showed no wear and Needle Bearings will function perfectly.

Torrington Needle Bearings lead themselves ideally to the lightweight compact, high capacity designs essential in modern aircraft. Our engineers will gladly help you adapt our Torrington Needle Bearings to your requirements. Write us today. The Torrington Company, Torrington, Conn., or South Road 21, Ind. District offices and distributors in principal cities of United States and Canada.



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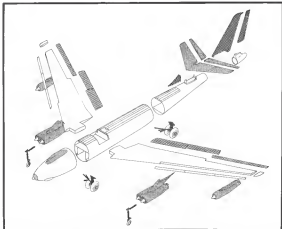
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SHADY COMPONENTS in this exploded F-47 view are produced by companies other than Boeing, maker of the aircraft.

Subcontracting Works for the Industry

Opportunities for subcontracting in fiscal 1948 are expected to be greater than in any previous year as government policy points more and more toward utilization of additional sources of supply.

Two major examples of subcontracting are significant: USAAF purchases Boeing B-47 Stratofortress, and the General Electric J-47 turbojet engine which powers that bomber and other first line military aircraft. How the work may be spread among many manufacturers.

► **Planned Production**—Boeing had an unusual opportunity to plan B-47 production in Wichita in its reopened Plant No. 11.

Approximately 17 percent of the B-47 airplane was subcontracted early in 1949. Subsequent outlooks in Boeing's other contracts and shifts in the total military procurement schedule resulted in a later adjustment eliminating some

of the aircraft component contracts. Principally affected were Martin and Cessna-Wright. A primary engineering advantage of subcontracting in production planning of the airplane for load, down into assembly components necessary in the completed airplane, yet leaving the general company to make the most important decisions and accept major responsibilities.

General Electric's program at Lockland, Ohio, in the plant occupied by Wright Aeronautical Corp. in World War II, is regarded by the AMC Industrial Planning Division as a major achievement. GE expects to reach peak production on its present contracts only in 1950, with approximately 1200 persons employed at Lockland. Yet very little of the engine is made by GE, and none of it is manufactured at Lockland.

► **Farming It Out**—Farming out the components of the J-47 to hundreds of

small and large manufacturers is the method used. GE has listed some 230 major subcontractors (AVIATION WEEK, June 27).

USAF industrial planners estimate it would have cost approximately \$42 million to activate the Lockheed J-47 project if it were a complete manufacturing facility built to produce the engine which it is assembling. By making use of available tooling in plants all over the country through subcontracting, the project has cost only about \$7 million, a saving of \$35 million.

Best indication that subcontracting is on an upward trend is an AMC report which showed in July 1, 1948, 741 subcontractors who had "current inspection." On the same date in 1945, the number had increased to 1195.

Turn to Next Page



BOEING's jet bomber is composed of parts from many subcontractors who feed their output into Wichita where



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LOCKLAND where GE tests its components for assembly into . . .



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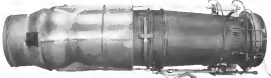
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As a result of a comprehensive three-year engineering program Solar has developed an afterburner which, with the Westinghouse J34 turbo jet engine, forms a combination that is the first to be used on production aircraft in the United States.

During these three years, Solar has successfully designed and manufactured complete afterburner units for the J31, J33, J34 and J35 turbo jet engines, accumulating over 2,000 hours of total test time on engines in the laboratory and in actual flight.

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\$170 Million a Year for Avionics Program

Military-civil aviation planning groups begin spending to implement billion dollar air weather airways system.

The extensive, billion dollar air-weather airways system, inaugurated during the past 18 months by joint military-civil aviation planning groups, is now moving forward toward rapid completion at an annual rate of about \$170 million in procurement of new avionics equipment.

Next to procurement of aircraft and engines, indeed expenditures on avionics equipment alone is the largest single item for procurement during the next five years. Slightly more than \$170 and has already been earmarked out of the fiscal 1958 federal budget for procurement of avionics equipment. These funds include:

• Civil Aeronautics Administration—\$40 million in cash and contract authority for avionics equipment to augment the civilian phase of the joint air-weather airways program.

• U.S. Air Force—\$115 million in cash and contract authority for avionics equipment for the air weather airways program, a global communications network, a radar warning network, ground identification systems, and command control coding.

• Navy—\$15 million in cash and contract authority for avionics equipment for the air-weather airways program, test equipment, anti-submarine warfare devices, counter radar equipment, and high volume production studies on avionics equipment.

Procurement of equipment for the air-weather airways system designed to cover the continental United States and some international air transport routes used by Military, Air Transport Service and U.S. commercial airlines will be

handled partly by the CAA, USAF and Navy. Each agency will buy equipment to service the airfields and routes for which it is primarily responsible. Both of this equipment will be purchased by CAA which is responsible for equipping and maintaining the civil

airways network in the continental United States, Hawaii and Alaska. ➤ Research Phase—Research and development phase of the air-weather airways program is headed by the Air Navigation Development Board, headed by Ralph Denson, TWA president, with Dr. Maurice Elving, former MIT radar expert and RCA research director, as technical director. Pattern for development of the complex new

CAA Avionics Program

Type of Facility	Total 1958 Program		Balance Program Years 1959 and 1960	
	Number of Facilities	Amount	Number of Facilities	Amount
Continental United States				
VOR-ILS equipment	33	\$4,254,000	24	\$31,940,735
High accuracy approach lights	11	2,331,000	10	41,718,131
Distance measuring equipment	160	15,041,750	151	3,718,570
Precision approach radar	31	5,181,000	14	1,121,121
Area navigation radar	89	4,151,000	36	29,798,987
Secondary radar	—	—	150	31,450,000
VOR-ADF equipment	44	361,200	306	1,780,140
VOR-remote range	30	441,200	12	219,364
Mechanical interlocks	—	—	32	1,400,121
Approach control timing devices	31	497,000	31	1,135,100
Alaska				
VOR-ILS equipment	4	550,000	5	516,130
Includes L.F. beacon	—	—	2	2,546,421
High accuracy approach lights	11	487,000	12	309,287
Distance measuring equipment	1	231,000	7	5,015,107
Precision approach radar	2	120,000	6	2,000,000
Area navigation radar	—	—	12	2,237,993
Secondary radar	—	—	12	253,141
VOR-ADF equipment	—	—	5	425,181
VOR-remote range	—	—	—	—
Mechanical interlocks	—	—	—	—
Approach control timing devices	—	—	—	—
Public areas				
VOR-ILS equipment	—	—	7	1,321,722
Includes L.F. beacon	—	—	2	1,350,271
High accuracy approach lights	—	—	10	2,616,704
Distance measuring equipment	—	—	10	2,239,440
Precision approach radar	—	—	7	5,422,011
Area navigation radar	—	—	8	1,752,236
Secondary radar	—	—	8	175,167
VOR-ADF equipment	—	—	6	317,284
VOR-remote range	—	—	—	—
Mechanical interlocks	—	—	—	—
Approach control timing devices	—	—	—	—
Continental areas				
VOR-ILS equipment	4	1,217,450	4	1,217,450
Includes L.F. beacon	—	—	2	1,079,794
High accuracy approach lights	—	—	12	315,106
Distance measuring equipment	—	—	12	415,339
Precision approach radar	—	—	10	548,020
Area navigation radar	—	—	8	391,011
Secondary radar	—	—	8	41,480
VOR-ADF equipment	—	—	6	305,786
VOR-remote range	—	—	—	—
Mechanical interlocks	—	—	—	—
Approach control timing devices	—	—	—	—
Total		\$18,445,265		\$182,776,461

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"Avionics" is a new word, coined by Aviation Week as a simple and much needed term to describe practically all the applications of electricity to the field of aeronautics.

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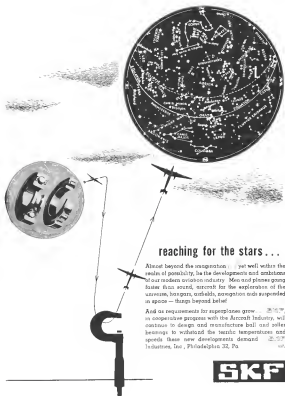
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atomic equipment required for the program now looks something like this:

1. New panel of the Air Coordinating Committee formulates the operational requirements of equipment for the individual command system.
2. Navigation committee of the Research and Development Board approves ACC operational requirements for the common system and adds any patch system requirements.
3. ANDR, through research and development, contracts with private industry gets experimental models of the required equipment, puts it through service testing and then after approval by AEC and AECDE establishes basic specifications for production models of the equipment.
4. CAA, USAF and NAVY have the specifics of the production equipment then, require to implement their share of the program. Key men in the air command program is Charles Hesse, head of CAA's Federal system system. Maj Gen Harold M. McClelland was electronic and command circuit director for the Defense Department in the last years in the industry program.
- **Several Markets**—The system must be divided between the government agencies who buy ground equipment for permanent installation along the major routes and military and commercial transport operators who purchase airborne equipment to enable planes to use the ground facilities.
- First, all the civilian, airborne equipment purchased will be for transport and heavier types but special emphasis is being placed on development of lightweight equipment that can be used in fighters. Commercial transports will require dual installations of all airborne systems equipment as a safety factor. In addition owners of executive transports and lightplane operators will be potential purchasers at various levels of airborne systems equipment developed for restricted purposes.
- There are now six states of systems equipment being processed for the airways program: very high frequency radio navigation, basic ILS search radar for traffic control, precision beam radar (GCA), VHF automatic direction finding (VHF auto-direction) range and approach control radar.
- Two other data distance measuring equipment and wind-sound (anemometer) are rapidly passing out of the development phase toward production and large scale procurement.
- **CAA Breakdown**—Breakdown of the CAA research program for fiscal 1979 indicates how the money currently appropriated for civilian aviation will be spent.
- **DMF**—\$15,045,226 to buy 560 ground units of distance measuring

- equipment for installation at joint sites of VHF omni-range stations and at the end of runways equipped with ILS. Estimated unit cost is \$25,600 for these at ILS sites and \$25,780 for those installed with omni-range.
- In addition to the government-financed ground installations, the military, commercial airlines, and owners of large executive planes will spend millions on airborne DMF equipment to use the ground facilities. Military and commercial transports are expected to be equipped with dual airborne DMF at a 2:1 ratio.
- VHF omni-range**—Bulk of the funds for ground omni-range stations has already been appropriated prior to fiscal 1970, although procurement of the 499 planned stations is still under way. Biggest share field in omni-range sales lies in production of airborne receivers to use the ground stations. Virtually every manufacturer of airborne radio equipment is working on omni-range receivers and several transport type models are slowly on the market. In addition to dual installations for military and commercial transports, there is a market of unattended scope for lightplane owners, owners for lightplanes and small executive transports.
- **ILS**—\$4,294,000 to buy 18 additional ground installations, 5149,845 to procure ILS systems already installed and \$1,725,240 to modernize other ILS systems now in operation. Many of the major airlines are now equipped with airborne ILS receivers but tactical air requirements indicate that most of the airborne units now in use will eventually be replaced with better omni-range receivers and a larger channel spread for glide path reception.
 - **GCA**—\$1,340,000 to purchase 13 precision beam radar approach unit. No airborne equipment is required for using GCA except standard radio communications.
 - **Traffic Control Radar**—\$8,333,000 to purchase 19 sets of search radar to give coverage of traffic in airport approach areas in all types of weather. Set is an experimental stage in an airborne radar system to be used with the ground radar stations for automatic plane identification and position reports.
 - **Automatic VHF/DIF**—\$660,352 for purchase of 44 sets to be installed in control tower at major air terminals. Only standard VHF radio communications are required for planes to use the VHF/DIF facilities.
 - **Approach Lights**—\$1,335,685 for 13 sets of high intensity approach lights.
 - **Control Tower**—\$896,689 to be spent for establishment of 12 new airport traffic control towers.
 - **Approach Control**—\$495,000 for purchase of 17 airport approach control being devices to be used in airport



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is a spacious cargo compartment capable of accommodating a 155in-Newber and truck, 60 fully equipped troops, 50 litter patients. Truly, Chase has placed

a new star in the aircraft firmament.

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WEST TRENTON, NEW JERSEY



control system to aid in scheduling a smooth flow of traffic into the landing runway as bad weather conditions.

• **Mechanical Instruments**—\$442,000 for purchase of 33 mechanical instruments designed to coordinate air traffic control information between control centers and control towers at major air bases only.

Remainder of CAA's fiscal 1959 airway funds will be spent on communications equipment of various types.

• **USAF-U.S. Air Force** fiscal 1959 program for services procurement breaks down as follows:
• **Air Navigation Aids**—\$27,195,164. This includes \$10,510,033 for GCA, \$5,104,585 for radio control aids, \$1,045,336 for area range ground stations, \$1,512,000 for airborne communications, \$605,890 for low frequency loran, \$9 million for weather communications equipment, 4-band radio control tower consoles and point-to-point communications equipment.

• **Radar Warning Net**—\$45,014,436. This is the third installment in a year program to provide a new type radar early warning network and fighter control system for air defense of North America.

• **UHF Communications**—\$22,951,424. This is the second installment in a joint USAF Navy program to shift military communications out of the very high frequency band where they now conflict with commercial aircraft frequencies into the ultra high frequencies. The UHF equipment will operate between 225 and 440 megacycles.

• **Identification Systems**—\$10,125,344. This is part of a joint USAF Navy program to provide new identification technology to distinguish friendly from enemy aircraft. It will include both ground and airborne equipment.

• **Communications**—\$3,416,320. This is part of a six-year program to replace World War II coding and decoding equipment with new type equipment offering better security.

More Use Planned For Field Offices

Steps to make the seven present field offices of the Air Materiel Command more useful to computers doing business with the Air Force are beginning to pay off in increased utilization of these offices by new and old contractors.

Using the same formula which has

(Continued on page 51)

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WHAT'S DOING

at Pratt & Whitney Aircraft?

Every working day at Pratt & Whitney Aircraft nearly 50,000 gallons of gasoline are consumed.

That's one way of saying that we do a lot of engine testing. But it doesn't begin to tell the complete story of Pratt & Whitney's test program. That program began in 1925, when we built our first Wasp engine. It has continued and expanded ever since. Twenty-four hours a day, six days a week (and often seven), scores of tests are being conducted on complete engines or component parts. And every test contributes something toward giving our customers better, more powerful, more dependable engines.

We believe that today Pratt & Whitney Aircraft has the finest engine test facilities in the world. These include such items as a multi-million dollar turbine test laboratory (devoted exclusively to testing turbine engine parts), more than a hundred large test houses for running completed engines, literally scores of smaller units for testing parts and accessories, special refrigeration and altitude laboratories, and our own fleet of flight test airplanes.

With these facilities in constant use, our current test program at Pratt & Whitney Aircraft is the largest in our history. Some idea of its scope can be gained from the brief outline on the next page.



Test facilities at Pratt & Whitney Aircraft include more than 100 installations, ranging from a single test bench to full-scale test houses and a flying test laboratory. They represent an investment of more than 25 million dollars.



Test personnel at Pratt & Whitney include more than 1,000 engineers, inspectors, technicians, flight mechanics, clerks and many others. In a year they devote more than 2,000,000 man hours to our test programs.

COMPONENT TESTING

Testing of a new type of engine begins before the first model is assembled. This is "component testing" in which major parts such as cylinders, superchargers, compressors, fuel pumps, bearings and others are individually tested to see how they will perform in the finished engine. Then, when the parts are assembled full-scale testing is first carried out for time-consuming, because many of the "bugs" have already been eliminated. Even after the engine is in regular production, component testing continues to be a necessity of the development program. Whenever a new part is developed, whatever its function, it is capable of whatever operating stresses it may see in service, a series of component tests help to solve the problems. In an average week, well over 100 tests are being conducted on various parts of Pratt & Whitney engines.

COMPLETE ENGINE TESTING

When the first experimental engine of a new type is assembled, a program of full-scale testing is begun to see how well the demands of individual parts have been met as a unit. Then the engine must pass the grueling 150-hour performance type test, to be certified. After again this is only the beginning, and there is a continuous program of full-scale testing to improve the performance of the parts. Each week many possible operating conditions. To simulate this program, a battery of 33 full-scale test houses are in almost constant use, testing representative propellers and turbine engines. Just as an example, nearly 10,000 hours of full-scale experimental testing have been done on the R-1000 Wasp Major type since the first engine was assembled. This does not include many additional thousands of hours of component testing and tests of thousands of hours of final testing at production engine.

FLIGHT TESTING

To supplement the component testing and full-scale testing, we carry on an extensive program of flight testing. We have our own aircraft, our own engine

control system, a fleet of half a dozen light and amphibious, and a half a dozen heavy and amphibious. They also do the ground tests on engines through the soil test of performance in actual flight.

SPECIAL TESTING

Still another phase of testing occurs frequently. This special and somewhat non-routine type of work is that which our engineers carry out outside our plants. To study icing conditions, several engines are run over during a low winter trip to Wash. state and during a low winter trip to Wash. state. In New England, others are run over several months in one of our summer's plants working with their engines at low speeds and full throttle. In some special tests to look a particular problem that has arisen there. All these tests help make our engines perform better under the unusual conditions often encountered in actual service.

PRODUCTION TESTING

All the testing referred to above takes place in the experimental development of new engine types. But even after they have passed their 150-hour type test and gone into quantity production, they are subjected to further testing. Every propeller engine that rolls off the final assembly line goes through one more test. First is the standard, given test of about 5 hours to make sure that it is functioning properly. Then it is completely disassembled and visually inspected for indications of unusual wear or unusual trouble. Following this, it is reassembled and run on the test stand for another 5 or 6 hours to see that it maintains up to performance guarantees before being shipped to the customer. Production models of our new turbine engines go through a similar test program. All told, more than 65 full-scale test houses are kept busy to test production units.

Summed up, Pratt & Whitney's test program involves heavy expenditures of time, money and effort, but it is giving our customers better, more powerful, more "dependable" engines.



Fuel consumed in our testing program amounts to more than 12 million gallons a year. This is the equivalent of 1,400 average tank cars—more than 10,000,000 man hours of gasoline. The testing program, 120,000 gallons of water per minute will go through the turbine test lab—no less the consumption of a city of 150,000 people.



PRATT & WHITNEY AIRCRAFT
EAST HARTFORD, CONNECTICUT
ONE OF THE FOUR DIVISIONS OF
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New Curtiss Propeller

FOR THE NEW L-749A CONSTELLATIONS

A new Curtiss propeller has been approved by the CAA for unrestricted operation on Lockheed L-749 and L-749A Constellations. This propeller's high solidity provides improved take-off, climb and cruise speed at higher gross weights, and its rugged construction assures long service life.

Other aerorespondent Curtiss features incorporated in this new pro-

peller are: . . . reliable feathering . . . reverse thrust for smooth, controlled landings . . . automatic synchronization for passenger comfort and ease of control . . . durable hollow wood blades for vibration resistance.

The acceptance of this new propeller, after extensive stand and flight testing . . . under conditions simulating the severest stresses of service use . . . is further evidence of Curtiss-Wright's leadership in the field of aircraft propellers.

CURTISS ELECTRIC PROPELLERS
A DIVISION OF
 PROPELLER DIVISION CURTISS-WRIGHT CORPORATION, NEW YORK
MADE IN U.S.A.



worked out in the contractor's liaison office at Wright Field's procurement division headquarters. AMGC is organizing field offices in parallel groups, well-lighted attractive quarters where contractors and their agents stress out aspect variations for bid and abstracts of contract awards, and get information about bid sets and on qualification as Air Force suppliers.

★ **Contracts Doubled**—With the number of individual Air Force contracts handled by AMGC doubled in the period between June 15, 1945 and June 30, 1949, and a sizable increase in the number of prime contractors and sub-



Is This Shipment for You?

Perhaps you can't make out the address. It may be BuAer or the USAF. Or it may be your shipment—of a fused-in antenna for a new jet aircraft, a moving target indicator or video mapping unit for air traffic control radar.

Or perhaps the shipment may contain an engineering report on the analysis of a particular problem, consequent recommendations or development of equipment.

Whatever the shipment, wherever it goes, the AIRloc seal assures the latest techniques in electronic research, development and production.

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Nowhere's such a wide of flying experience, also welcomes requests from manufacturers seeking reliable development and production facilities.

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+ 3 sizes in a range of stud types and sizes for almost every need

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Overwhelming
Odds...

They Use PACIFIC-WESTERN GEAR ENGINEERING

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manufacturers of aircraft
and engine aircraft
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or production facilities.

SOME ASSIGNMENTS ARE EASY

Swift, accurate answers to many problems are coming because of our substantial background in the aircraft industry. The theoretical and empirical data we have developed over many years is called upon soon for your immediate benefit as soon as your inquiry is received.

SOME ARE DIFFICULT

Our engineering departments are working constantly with advanced projects in the aircraft mechanical-power-transmission field. We can attack your current problem with knowledge that is up-to-date.

NO GEAR WE CAN'T CUT

Pacific-Western manufacturing facilities are most unusual. We produce every known type of gear in our own plants, as well as special machined aircraft parts and shapes.

CATALOGS AVAILABLE

For additional information, send for Aircraft Actuators Catalog 4901 and Aircraft Equipment Bulletin 4904.



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GEAR ENGINEERING



contractor, each of the field offices is carrying a proportionately heavier load than before.

The seven offices, and their new invading officers are as follows:

• **Boston, Liberty 2 6800, Boston Army Base, Boston 10, Mass., Lt. Col. Philip J. Kelly.**

• **Chicago, Webster 9-4344, 209 W. Jackson Blvd., Chicago 6, Ill., Lt. Col. Charles G. Eise.**

• **Dayton, Kentucky 7111, Ext. 61906, Wright-Patterson AFB, Dayton, May Lawrence H. Pugh.**

• **Detroit, Hagerth 5718, West Warren and Lounge Ave., Col. Russell Kallala.**

• **El Paso, 72151, Government Aircraft Plant No. 4, Col. Beverly H. Winters.**

• **Los Angeles, Project 4711, 155 W. Washington Blvd., P. O. Box 1049, Terminal Annex, Brig. Gen. Thomas H. Chapman.**

• **New York, Whitehall 41600, 47 Broad St., Brig. Gen. Arthur Thomas.**

Recently opened on the West Coast was an important new sub-field office at Oakland Municipal Airport near San Francisco, which covers Northern California and adjacent areas. It is under jurisdiction of the Los Angeles office.

In addition AMC operations fall here for those plant representative offices at the factories of several of its principal engine and engine manufacturers.

A typical field office is a manufac-



**NOW ON
FLEET
DUTY!**

In striking effectiveness and speed, the Douglas AD-Skyraider line of dive and attack bombers is meeting the highest requirements of national defense. The result of nearly two decades of attack development by Douglas, the Skyraider, like its predecessor the SBD *Devastator*, is famed for top performance and dependability under all operating conditions. Today the Skyraider is in volume production at the El Segundo Plant of Douglas for the U. S. Navy.

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San Francisco 3, California 94104
Lynchburg 3, Virginia 24502
San Jose 10, California 95128
San Luis Obispo 10, California 93401
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Power package for the B-50 completely built and assembled for Boeing Airplane Company by Rohr

Power package for the B-50 completely built and assembled for Boeing Airplane Company by Rohr

ROHR

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AMC, agreed to handle contracts inspection, production and industrial planning, industrial property accounting, etc. Some of the officers, whose units include some of the principal aircraft plants, maintain a flight operations branch which directs flight test on new planes purchased as government planes that are reconditioned.

Off-Office Interviews: The applicant to be interviewed in his or her home or office. The applicant's location will vary; however, by working with his regional field office instead of sending him frequent trips to Dayton. At the field office he will find posted notices for instantiations for bids, and construct awards and will find an industrial planning representative who will assist him in qualifying as a source of supply for USAF. At the field office he is permitted to suspect bid requirements in a complete bid list for each contract so that he can determine if he wants to enter the competition on that particular item.

If he decides to compete, he is then restricted to a role as a test for a bid lot of his own to Contracting Officer, AMC, Wright-Patterson AFB, Dayton, Ohio. Attention: MCP98X72

► **Contract Payments**—Contracting off-
cers at the field offices supervise the
carrying out of each contract to com-
pletion, or interruptions interpret con-
tract clauses to manufacturers, and make

BOSTON



payments. USAM pays its contractors in several ways, depending on contract terms. In some fixed-price contracts, payments can be made as often as six or ten times a day. Payments are sometimes further complicated by the fact that the contractor may have several contracts active simultaneously, making, for example, analysis as well as sub-contracts.

The field office does not often run into the subcontracting business except to provide inspection on certain subcontracted items that are components of larger assemblies but which are not directly complicated in themselves to require inspection before delivery of the

subcontracted article to the power contractor's plant.

► **Half Air Inspectors**—Inspection is one of the biggest jobs of the field office, and approximately half of its employees are inspection personnel. The usual procedure is an unannounced arrangement with the manufacturer who is expected to supply most of the inspection in his own plant, subject to the AMCI inspectors' training, requirements and spot checking.

In the Los Angeles area, rates of Air Force to company inspections fluctuate from 1:45 to 1:20 after a plant inspection system has received a satellite copy status.



Daily Steel Deliveries to the Aircraft Industry

Wherever you are, Ryerson iricks are rolling your way every day spending shipments of the finest quality steel from nearby Ryerson stocks.

Carbon, alloy and stainless steels in thousands of shapes, sizes and finishes make up the daily stream of steel. In pounds and tons it flows to your industry from the nationwide network of American Ingot System plants.

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and one avenue quickly covers a whole group of steel requirements. Do you want one piece or a truckload? You get prompt, personal service either way. Do you want your steel sheared, welded or slit—burned, bent, punched or threaded? You can be sure of getting quick accurate delivery from your nearby Eberline plant. So call us next time you need steel from stock. We'll get it to you faster because we're moving your way every day.

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Complete
INFORMATION ON HYDRAULIC TUBING
(.010" to 1 1/2" O.D., max.)

Every design engineer and production man interested in the many uses of hydraulic tubing will find Superior Bulletin #38 a useful, authoritative compilation of basic data.

Specific sections of the bulletin cover analysis, size ranges, lengths and weights of Superior Hydraulic Tubing. Other sections give important facts on test procedures and the maximum working pressures of the tubing.

See the listing table on the inside of the cover for more information.

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2030 Greenwood Ave., Hawthorne, Pa.
The Superior tubing is the most widely used hydraulic tubing in the world.
100,000 SQ. FT. PRODUCING METAL TUBING

Property Classes

United States Air Force keeps an accounting of its widely scattered physical properties by means of a numerical classification system not unlike the system used to classify books in public libraries.

While space does not permit listing of the complete classification listings here, the basic property classes are shown as a service to manufacturers interested in USAF procurement. Manufacturers should know the property class or classes in which their products are placed and related classes.

USAF Property Classes

- **Class 01:** Aircraft and aircraft parts. Complete aircraft are in sub-class 01-A, and complete aircraft for ground aviation purposes are in sub-class 01-Z, other sub-classes within this class denote aircraft parts.
- **Class 02:** Aircraft engines and engine parts. Complete aircraft engines are in Sub-Class 02-A. Aircraft engine components, such as oil coolers (aircraft parts and auxiliary powerplants for electrical systems, are in Sub-Class 02-B. Other sub-classes within this class denote aircraft engine parts.
- **Class 03:** Aircraft and engine accessories and accessories parts. Aircraft engine accessories and accessories parts include: 03-A, propellers and parts, 03-B, wheels, landing gear, 03-C, parts, 03-D, aircraft oil lubricants and parts, 03-E, turbochargers and parts, 03-F, miscellaneous aircraft accessories, ranging from lubricants to landing gear, 03-G, hydraulic struts and actuating systems, 03-H, aircraft fuel systems and parts, 03-I, aircraft fuel systems, lubricants, reservoirs, oil and de-icing systems and parts, 03-J, miscellaneous aircraft accessories including fuel systems, carburetors, etc., 03-K, breathing oxygen equipment, 03-L, auxiliary fuel tanks, 03-M, transmissions for military wing aircraft.
- **Class 04:** Aircraft hardware, rubber, paint, parts, bearings.
- **Class 05:** Aircraft instruments, including navigation, flight, engine, and miscellaneous instruments and parts. This class also includes automatic pilots and gyro control mechanisms.
- **Class 06:** Fuels, lubricants and gases.
- **Class 07:** Dyes, paints, cleaning compounds, stains, glues, etc., etc.
- **Class 08:** Commercial electrical equipment and accessories.
- **Class 09:** Aerial targets and gliders.
- **Class 10:** Paratrooper equipment and supplies.
- **Class 11:** Aircraft armament, including launching equipment, from hand-launched to heavy and medium, gunnery equipment, bombs and guided missiles.
- **Class 12:** Fuel and oil handling equipment.
- **Class 13:** Special-purpose clothing and personal equipment, including personal carrying paraphernalia, oxygen masks, flying suits, etc.
- **Class 14:** Sub-class 14-B, pre-determined ladders and buildings.
- **Class 15:** One-time modifications kits, for field changes in aircraft engines, accessories, etc. (Continued, p. 11)



WILCOX ...First Choice for Transatlantic Airline Communication

The winging propellers of the international airlines make daily mastery of the vast space of the Atlantic Ocean intercontinental passengers and cargo come and go heavily at New York, Miami, London, Shannon, Ireland, and Lisbon, Portugal. These European and American airports are equipped with modern long-range, multichannel WILCOX Transmitters.

Oslo, Norway, and Stockholm, Sweden, use WILCOX Transmitters as basic communications

equipment, and radio beacon service is provided at Reykjavik, Iceland, by WILCOX Type 96-200 Transmitters.

That, the great outposts of the world's major airways are protected in flight and guided safely to the runways of Europe's and America's principal ports of entry.

WRITE TODAY for complete information on our basic, ground station, point-to-point, or shore-to-shore communications equipment.

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Would you?

do business with THIS Company!

Glendale News-Press
 MONDAY, NOV. 15, 1948
 PAGE 48

Integrity in Business

Although business interest, both large and small, have long been centered in the "big bad wolf" of the insurance life, the fact is that most business organizations are considerably better members of the economic family than certain insurance groups would have you believe.

Integrity in business is far more, rather than the exception, the rule in the insurance industry. It is increasing and moving along to build certain insurance groups into a family that has been broken by the "big bad wolf" of the insurance life.

This company, one of Glendale's most important enterprises, is a member of the insurance family. It is a company that has been in Glendale for many years, and its reputation is well known.

It is a company that has been in Glendale for many years, and its reputation is well known. It is a company that has been in Glendale for many years, and its reputation is well known.

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- Class 23: Bell's metals and composition materials, including sheet tubing, copper, steel, zinc, aluminum, etc.
- Class 24: Chemicals
- Class 25: Office equipment and supplies
- Class 26: Ground school equipment
- Class 27: Tools and repair projects
- Class 28: Instructional equipment and training aids
- Class 29: Hardware and miscellaneous supplies
- Class 30: Public items, drawings, blackboards, training films
- Class 31: Foreign aircraft related equipment and material
- Class 32: Aircraft and equipment for various historical purposes
- Class 33: Miscellaneous items and repair work, including refrigerators, stoves, air conditioning, electrical supplies, etc.

Liaison Offices To Help Vendors

A new list of government officials to assist small business in obtaining military procurement contracts has been released by the Merchant Board Office of Procurement Methods.

These are the small business liaison officers for Air Force and Navy procurement.

Department of the Navy

- Director, Office of Naval Material, Small Business Liaison Office, Room 2307, Main Navy Bldg., Washington, D. C.
- Chief, Bureau of Aeronautics, Small Business Liaison Office, Room 2W 16, Bldg. W, Main Navy Bldg., Washington, D. C.
- Chief, Office of Naval Material, Small Business Liaison Office, Room 2005 Main Navy Bldg., Washington, D. C.
- Chief, Office of Naval Material, Small Business Liaison Office, Room 2005 Main Navy Bldg., Washington, D. C.
- Chief, Office of Naval Material, Small Business Liaison Office, Room 2005 Main Navy Bldg., Washington, D. C.
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Free—Technical Manual

Just fill in this card and send it to Kester. We will send you a free copy of our new 1948-49 Technical Manual. It contains complete information on the properties and uses of all Kester solders.



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ANY WAY YOU
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- Officer-in-Charge, Naval Purchasing Office, Small Business Liaison Office, Norfolk, Va., Lt. (jg) W. J. Lewis, USN
- Supply Officer, U. S. Naval Air Station, Small Business Liaison Office, Pensacola, Fla., Ensign J. A. Doreilly
- Supply Officer, U. S. Naval Air Station, Small Business Liaison Office, Miami, Fla., Cmdr. M. W. Black, Jr.
- Supply Officer, Naval Air Station, Small Business Liaison Office, Camp Field, Pensacola, Fla., Lt. (jg) C. C. McCall
- Supply Officer, U. S. Naval Air Station, Small Business Liaison Office, Corpus Christi, Tex., Ensign R. G. Bigler
- Supply Officer, U. S. Naval Station, New Orleans, Small Business Liaison Office, Alameda 14, La., Cmdr. R. G. Lamm, Lt. Cmdr. H. B. McChade
- Supply Officer, U. S. Naval Air Station, Small Business Liaison Office, Jacksonville, Fla., Lt. J. B. West
- Commanding Officer, U. S. Naval Air Station, Small Business Liaison Office, Memphis, Tenn., Lt. Cmdr. J. W. McClaw
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- Commanding Officer, U. S. Ordnance Laboratory, Small Business Liaison Office, White Oak, Md., Lt. Cmdr. T. E. Foster, Jr.
- Officer-in-Charge, U. S. Navy Purchasing Office, Small Business Liaison Office, Naval Navy Bldg., Washington 25 D. C., Lt. W. M. Lohse
- Supply Officer, U. S. Naval Research



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Says Chief Pilot Stam, "For consistently reliable communication, I rate the RCA '49' and '22' best in the field. I like the swing in space and weight they give me. And I like the fact that they don't require much battery current. During one flight, when my generator failed, I maintained normal communication for several hours by operating the radio off the plane's battery until I landed."

Engineered specifically to airline standards, the RCA "49" and "22" have passed the type tests for CAA certification. Call your RCA distributor for complete data. Or write Dept. 31, RCA Engineering Products, Camden, N. J.



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In Canada: RCA VICTOR Company Limited, Montreal



RCA "49"
TRANSMITTER

- 30 watts output, voice or CW
- Automatic band-change
- 4 independent frequencies
- Completely self-contained
- Weighs only 4 lbs.; portable
- Fits any standard airline rack
- Available for 15- or 30-watt operation
- Complete remote control



RCA "22"
RECEIVER

- Continuous tuning over weather and enroute, standard broadcast, and air-to-air communications bands
- Instant switching to either of four crystal-controlled frequencies between 112.5 to 12.5 Mc—plus airport tower frequency
- Can be used for accurate heading and position-fixing with any RCA loop antenna
- Provides for telephone and off-line conversations
- Weighs only 10 pounds
- Fits any standard airline rack
- Available for 15- or 30-watt operation
- Complete remote control

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BETTER DESIGN
SERVICE AND
MAINTENANCE OF
ELECTRICAL AND
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NO OTHER manufacturer of electric connectors offers as many varied and diversified type series of quality electric connectors as Cannon Electric.

No other manufacturer of electric connectors has designed, engineered and built as many different special connectors for special applications.

Connectors for aircraft, radio, radar, guided missiles, microphones, power, instrumentation, control, television, public address systems, geophysical equipment, telephone, industrial controls, and general electrical and electronic applications.

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Department of the Air Force

* The Commanding General, Air Materiel Command, Small Business Liaison Office, Wright Patterson Air Force Base, Dayton, Ohio: Mr. B. C. Dempsey

* Director of Procurement and Industrial Planning Office, DCS/AM, Small Business Liaison Office, National Defense Building, Washington 25, D. C.: Col. John G. Schuman

* Chief, Chicago USAF Procurement Field Office, Small Business Liaison Office, 289 W. Jackson Blvd., Chicago 6, Ill.: Mr. John V. Cahill

* Chief, Los Angeles USAF Procurement Field Office, Small Business Liaison Office, 700 S. Bas St., Los Angeles 10, Calif.: Mr. D. E. Marshall

* Chief, Detroit USAF Procurement Field Office, Small Business Liaison Office, West Warren & Loomis Avenues, Detroit 21, Mich.: Mr. Paul R. Acton

* Chief, Fort Worth USAF Procurement Field Office, Small Business Liaison Office, Government Aircraft Plant No. 4, Fort Worth 1, Tex.: Mr. Rush Cobb

* Chief, Dayton USAF Procurement Field Office, Small Business Liaison Office, Wright-Patterson Air Force Base, Dayton, Ohio: Mr. Herbert E. Teitman

* Chief, New York USAF Procurement Field Office, Small Business Liaison Office, 67 Broad St., New York 4, N. Y.: Mr. Philip Soos

* Chief, Boston USAF Procurement Field Office, Small Business Liaison Office, Boston Army Base, Boston 10, Mass.: Mr. Franklin C. DePinto

Industry Sales

Convair, Boeing lead in jump over half of '48. Sales of 8 firms down.

The aircraft industry's sales for the first six months of this year went up \$185 million over the same period last year, primarily due to major boosts in the volume of Consolidated Vultee Aircraft Corp. and Boeing Airplane Co.

Sales of 10 manufacturers totaling \$673,773,000 for the first half of this year compared with \$490,463,000 for the comparable 1948 period.

Convair's sales skyrocketed from \$16,193,000 for the first half of 1948 to \$104,352,000 for the first half of this year. Boeing's sales bounced from \$37,063,000 for the first half of 1948



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to \$110,000,000 for the first half of the year.

Sales of eight manufacturers were down: Beech Aircraft Corp., Bell Aircraft Corp., Cessna Aircraft Co., Fairchild Engine and Airplane Corp., Lockheed Aircraft Corp., Glenn L. Martin Co., Republic Aviation Corp., and United Aircraft Corp.

Sales totals for the first six months of this year (with totals for the first six months of 1949 in parentheses):

- Beech Aircraft Corp., \$14,000,000 (\$11,723,800)
- Bell Aircraft Corp., \$1,400,000 (\$8,104,000)
- Bellows Aircraft Corp., \$156,800 (\$146,000)
- Cessna Aircraft Co., \$7,617,000 (\$7,909,000)
- Cessna-Wright Corp., \$10,411,000 (\$11,894,000)
- Douglas Aircraft Co., \$72,254,000 (\$42,021,000)
- Fairchild Engine and Airplane Corp., \$11,796,000 (\$17,059,000)
- Grumman Aircraft Engineering Corp., \$1,606,000 (\$1,694,000)
- Lockheed Aircraft Corp., \$11,799,000 (\$40,981,000)
- Glenn L. Martin Co., \$2,551,000 (\$16,889,000)
- North American Aviation, \$67,171,000 (\$14,561,000)
- Northrup Aircraft, \$13,479,000 (\$11,872,000)
- Piper Aircraft Corp., \$4,190,000 (\$1,818,000)
- Republic Aviation Corp., \$17,770,000 (\$21,118,000)
- Ryan Aeronautical Co., \$7,534,000 (\$1,410,000)
- United Aircraft Corp., \$158,117,000 (\$108,519,000)

Source Inspection For Screw Products

USAF source inspection is being put into effect at all plants manufacturing screw products, such as bolts, nuts, screws, rollers, etc., in a new program to facilitate maintaining a constant quality control on aircraft materials whether manufactured on government contracts or not.

Under this program was initiated a manufacturer of these products could get Air Force inspection only on items produced under a specific government contract. The new plan provides for assignment of resident inspectors who will inspect all screw products under quality control procedures.

Quality Standard-Bench will eliminate a double standard of quality between USAF-approved items, and the actually identical and interchangeable items which the manufacturers produced for civilian without an inspection by the Air Force.

Distributors of these manufacturers were notified of this arrangement so that they will be prepared to carry stocks of USAF approved and approved parts and will have them available for manufacturers requiring USAF inspection.

Packages will be received by the customer sealed with Air Force approval stamp. The distributor is thus relieved of the anxiety of handling affidavits concerning the products and submitting samples for inspection to USAF contractors who are far customers.

Navy Bureau of Aeronautics is understood to have agreed to accept the Air Force inspection and approval on the screw products.

All Distressed Areas Get Bid Invitations

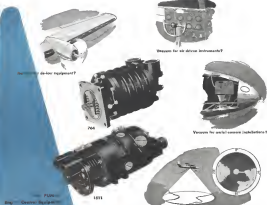
Additional sheets of supply for USAF and Navy equipment and other work are expected to be provided by a new method of publicizing bid invitations in locations where unemployment is heavy.

USAF took the lead in this new program, following a directive from Defense Secretary Louis Johnson, releasing a memorandum from President Truman, asking that all departments channel and trace their programs with a view to assisting these areas.

An Materiel Command had previously set up machinery for listing its activities for bid in response to a request from AVIATION WEEK that this be supplied for weekly publication. Additional reports from other publications resulted in broadening the distribution from AMC. Result was that AMC was ready immediately on the President's request to send out listings of opportunities for bid to post masters, but bulletin board display in community classified as "unemployment alert areas."

Subsequently the Navy and Army Departments were asked by the Materiel Command to supply similar lists to the publications of the distressed areas, and were furnished samples of AMC listings as a guide in preparation of their own material.

Manufacturers in these so-called distressed areas will have a special incentive to bid on government contracts as a result of a policy established by the Materiel Command and approved by Commander General Lucius W. Harris, that in the event of emergency, a bidder in a "distressed" area shall be given preference over another bidder in that contract will be cancelled when these areas whenever it is not prejudicial to the government.



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- Engine Starting Equipment
- Hydraulic Equipment
- Ice Elimination Equipment
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Local Buying

Manufacturers seeking small procurement contracts let locally by individual military installations should advise the commanding officer or the contracting officer at the bases listed below, stating the particular items they can supply. Invitations to bid, and the procedure to receive these materials, will be sent the same as it does at Air Materiel Command headquarters and Bureau of Aeronautics headquarters.

These installations make local purchases:

At Materiel Command
Wright Patterson Air Force Base
Procurement Division
Dayton, Ohio
(Procurement)
Air Force Technical Base
Wright Patterson Air Force Base
Dayton, Ohio
(Development Center)
Madison Air Materiel Area
Olinsted Air Force Base
Madison, Pa.
Oklahoma City Air Materiel Area
Tinker Air Force Base
Oklahoma City, Okla.
Ogden Air Materiel Area
14th Air Force Base
Ogden, Utah
Mobile Air Materiel Area
Boswell Air Force Base
Mobile, Ala.
San Antonio Air Materiel Area
McChesney Air Force Base
San Antonio, Calif.
Walter Robert Air Materiel Area
Roberts Air Force Base
Walter Robins, Ga.
San Antonio Air Materiel Area
Keller Air Force Base
San Antonio, Tex.
Holloman Air Force Base
Alamogordo, New Mex.
Gardner, Minn.
Kirtland Air Force Base
Albuquerque, New Mex.
(Aircraft Component)
Naves Air Force Base
Myers, Calif.
(Flight Training)
Crosby Air Force Base
Wilmington, Ohio
(Air Weather Center)
Griffin Air Force Base
Rivers, N. Y.
(Electronics)
Pope Air Force Base
Pope, Tex.
(Aircraft Storage)
San Bernardino Air Force Base
San Bernardino, Calif.
(Storage & Issue)
32nd AF Specialized Depot
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Boeing B-47 STRATOFOR

Installations in



Day by day and light by light, the advantages of Stratos relays put wings and air conditioning conditions are long proved—proved in military and commercial planes, lighters and bombers, jet and propeller-powered aircraft and in overseas passenger transports.

In them, Stratos equipment provides cabin pressurization and air conditioning in aid to military operations, so essential to achieve operating economy and power output. Rapidly solving conditions of day-high speed present complex problems, solved only by precise engineering methods.

Stratos advantages have been achieved through the highest standards of design ingenuity, precision manufacturing techniques, plus knowledge and experience—experience dating from the days when engine superchargers were in their infancy.

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Superchargers can be engine-mounted, take power directly from integrating engines.

Hydraulic coupling maintains constant air flow to the valve independent of engine speed and altitude.

Light weight—the Boshes air conditioning unit weighs 14 pounds, the Constellation's less than 50.

Composures, Dependability. Easy maintenance. Highest standards of performance.

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With silver-plated contacts, current continuity is not impaired, and selected alloys resist spring tension and function with lowest frictional drag.

AMPHENOL Firewall Connectors have been subjected to the full C.A.R. requirements and have continued to operate efficiently long beyond the test time limit. AMPHENOL, again, has given the aircraft industry a new contribution to safety in the air. AMPHENOL Firewall Connectors are also an indispensable new tool for high temperature industrial applications.

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on full-time duty in the office. Major Ted Speer interviews callers with products for the Air Force, Capt. A. A. Melchinsky handles Army calls, and Lt. Jonn Puckering, USN, answers queries on matters of Navy procurement. The Military Procurement Information Center is located in room 3-D-760, the Pentagon telephone number is RA6646 6790, extension 75521.

Procurement Terms

These established definitions will be useful to manufacturers and dealers interested in military contracts.

• **Special Purpose Item:** An article authorized by design or physical characteristics to an individual application.

• **General Purpose Item:** An article designed to meet more than one application.

• **Contractor:** An individual, company, firm or corporation which enters into a written agreement to perform work or furnish supplies.

• **Prime Contractor:** A contractor who has entered into a written agreement with the government to perform work or furnish supplies.

• **Subcontractor:** A contractor who has entered into a written agreement with a prime contractor to perform work or furnish supplies.

• **Invention:** An individual, company, firm or corporation, holding proprietary design rights, manufacturing methods or patents who enters into a written agreement whereby these rights, methods, or patents may be used by other individuals, companies, firms, corporations or the government.

• **Licensed:** An individual, company, firm or corporation authorized by a licensee to use his proprietary design rights, manufacturing methods or patents in the manufacture of articles offered for sale.

• **Manufacturer:** An individual, company, firm or corporation engaged in the manufacture of finished or semi-finished products.

• **Modification:** The physical alteration of a special or general purpose item, accomplished to permit a specific addition of the specified article.

• **Contractual Item:** An article designed for and available on the open market.

• **Specification:** A description of the technical requirements for a material, system or a service, including a provision to apply the purchaser's data whenever the requirements are not the same.

• **End Item:** A unit which, in itself, accomplishes a specific complete function.

• **Assembly:** A unit of an end item composed of two or more parts fastened together. Assemblies may be referred to as "subassemblies" and "sub-subassemblies" to indicate their relationship to a

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The first
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TOTAL PRESSURE DROP:
15 psi at 2 gpm flow
37 psi at 25 gpm flow

HANDLE LOAD:
17 inch lbs at 1500 psi,
20 inch lbs at 3000 psi
2 Drop per min. normal
leakage rate at 3000 psi

#2896 1/2" 4-WAY SELECTOR VALVE

TOTAL PRESSURE DROP:
45 psi at 6 gpm

HANDLE LOAD:
22 inch lbs at 1500 psi,
30 inch lbs at 3000 psi
1 Drop per min. normal
leakage rate at 3000 psi

#2895 1/2" 4-WAY SELECTOR VALVE

TOTAL PRESSURE DROP:
60 psi at 16 gpm

HANDLE LOAD:
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40 inch lbs at 3000 psi
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leakage rate at 3000 psi

Here's Adel's new line of lightweight 3000 psi, non-interflow 4-Way Disc Type Selector Valves with extremely low handle torque, negligible pressure drop and excellent leakage characteristics. More than meeting the latest proposed AN Specification requirements, they represent the most advanced engineering design for 3000 psi manually-operated Selector Valves. Non-interflow design completely eliminates all undesirable interaction when changing shaft positions. No moving packings under system pressure. Hydraulic sealing is accomplished by hardened surfaces that are oppositely flat within one thousandth of an inch. Available with or without detents in 1/4", 3/8", 1/2" and 3/4" line sizes with a wide variety of flow patterns. ADEL PRECISION PRODUCTS CORP., 10777 Van Overa Street, Burbank, California

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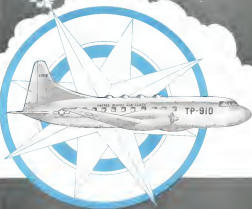
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razor assembly for the product
• **Selsomable**—A unit of an assembly composed of two or more parts fastened together.

• **Parts**—An individual piece of an end item in assembly. Parts may be described as integral, component, related, detail or attaching, according to function.

• **Attachment**—A supplementary device fastened to, or mounted on a machine, vehicle, apparatus, or other end item in way or method the function thereof.

• **Accessory**—A supplementary device used in conjunction with an end item, contributing to the effectiveness thereof without extending or varying the basic function.

Phantom Orders

"Phantom orders" for 100,000 machine tools, \$75 million worth of cutting tools, and 820 million worth of mass production gauges have been placed with industry by the National Security Resources Board in the past year.

The "phantom order," in reality a pool order, is limited only now for a specific lot of products to be supplied "if and when" mobile starts in the future. Manufacturers with such orders need only a telegram from the Secretariat of Defense, or the War Relocation Authority, to begin work on the job. On the strength of the telegram the manufacturers can go to his bank and borrow up to 90 percent of the total value of his order.

• **200 Companies**—The machine tool orders handed to 200 companies, over the lot to be placed by the NSRB. They would cost, at present day prices, about \$750 million. Metal cutting tools and gauges were next put under the plan.

Second order production commodities, including anti-friction bearings and fractional horsepower motors, may be brought under the plan in the future.

The plan is being revised constantly. Such things as new models of tools and new production tool designs for manufacture of new end items like jet engines, make constant revision of the tool and equipment stable position necessary.

Other types of mobilization plans have been made by NSRB for heat treating, furnace, abrasives and laundry equipment.

Through the "phantom orders" and other mobilization techniques, M.D. (Military Department) thinks that they have set at least a year off the time needed to "take up slack" in the military-industrial machine. This would reduce the uncertainties now for industry from the two years of World War II to about one year in the future.

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Buyers List

Principal buyers for all government agencies, military and civil-connected with buying aviation products are listed below. An Material Command prime unit personnel are located in Area B of Wright Patterson AFB, Ohio. Aviation Supply Office personnel are in the Head quarters Building in Philadelphia, at Oxford Avenue, and Martin's Mill Rd.

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R. W. Kishel, technical assistant
C. L. Trout, technical planning assistant
C. J. Jacobs, administrative assistant

Communications Branch

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Maj. P. Perry, B-56
Maj. W. F. Nollan, B-47
Capt. J. D. Weber, B-52, YB-55, YB-49
Capt. J. H. Shaffer, B-47

Fighter Branch

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Lt. Col. G. T. Koenig, F-89
Capt. E. H. Robertson, F-52, F-86
Stephen Livan, F-80
Maj. W. B. Sellers, F-84

Control Modules Branch

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J. W. C. Grogan, as branch manager
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Capt. L. L. Stone, liaison wing, XH-52, XH-53, XH-56, XH-57, XH-58, XH-59, XH-60, XH-61, XH-62, XH-63, XH-64, XH-65, XH-66, XH-67, XH-68, XH-69, XH-70, XH-71, XH-72, XH-73, XH-74, XH-75, XH-76, XH-77, XH-78, XH-79, XH-80, XH-81, XH-82, XH-83, XH-84, XH-85, XH-86, XH-87, XH-88, XH-89, XH-90, XH-91, XH-92, XH-93, XH-94, XH-95, XH-96, XH-97, XH-98, XH-99, XH-100, XH-101, XH-102, XH-103, XH-104, XH-105, XH-106, XH-107, XH-108, XH-109, XH-110, XH-111, XH-112, XH-113, XH-114, XH-115, XH-116, XH-117, XH-118, XH-119, XH-120, XH-121, XH-122, XH-123, XH-124, XH-125, XH-126, XH-127, XH-128, XH-129, XH-130, XH-131, XH-132, XH-133, XH-134, XH-135, XH-136, XH-137, XH-138, XH-139, XH-140, XH-141, XH-142, XH-143, XH-144, XH-145, XH-146, XH-147, XH-148, XH-149, XH-150, XH-151, XH-152, XH-153, XH-154, XH-155, XH-156, XH-157, XH-158, XH-159, XH-160, XH-161, XH-162, XH-163, XH-164, XH-165, XH-166, XH-167, XH-168, XH-169, XH-170, XH-171, XH-172, XH-173, XH-174, XH-175, XH-176, XH-177, XH-178, XH-179, XH-180, XH-181, XH-182, XH-183, XH-184, XH-185, XH-186, XH-187, XH-188, XH-189, XH-190, XH-191, XH-192, XH-193, XH-194, XH-195, XH-196, XH-197, XH-198, XH-199, XH-200, XH-201, XH-202, XH-203, XH-204, XH-205, XH-206, XH-207, XH-208, XH-209, XH-210, XH-211, XH-212, XH-213, XH-214, XH-215, XH-216, XH-217, XH-218, XH-219, XH-220, XH-221, XH-222, XH-223, XH-224, XH-225, XH-226, XH-227, XH-228, XH-229, XH-230, XH-231, XH-232, XH-233, XH-234, XH-235, XH-236, XH-237, XH-238, XH-239, XH-240, XH-241, XH-242, XH-243, XH-244, XH-245, XH-246, XH-247, XH-248, XH-249, XH-250, XH-251, XH-252, XH-253, XH-254, XH-255, XH-256, XH-257, XH-258, XH-259, XH-260, XH-261, XH-262, XH-263, XH-264, XH-265, XH-266, XH-267, XH-268, XH-269, XH-270, XH-271, XH-272, XH-273, XH-274, XH-275, XH-276, XH-277, XH-278, XH-279, XH-280, XH-281, XH-282, XH-283, XH-284, XH-285, XH-286, XH-287, XH-288, XH-289, XH-290, XH-291, XH-292, XH-293, XH-294, XH-295, XH-296, XH-297, XH-298, XH-299, XH-300, XH-301, XH-302, XH-303, XH-304, XH-305, XH-306, XH-307, XH-308, XH-309, XH-310, XH-311, XH-312, XH-313, XH-314, XH-315, XH-316, XH-317, XH-318, XH-319, XH-320, XH-321, XH-322, XH-323, XH-324, XH-325, XH-326, XH-327, XH-328, XH-329, XH-330, XH-331, XH-332, XH-333, XH-334, XH-335, XH-336, XH-337, XH-338, XH-339, XH-340, XH-341, XH-342, XH-343, XH-344, XH-345, XH-346, XH-347, XH-348, XH-349, XH-350, XH-351, XH-352, XH-353, XH-354, XH-355, XH-356, XH-357, XH-358, XH-359, XH-360, XH-361, XH-362, XH-363, XH-364, XH-365, XH-366, XH-367, XH-368, XH-369, XH-370, XH-371, XH-372, XH-373, XH-374, XH-375, XH-376, XH-377, XH-378, XH-379, XH-380, XH-381, XH-382, XH-383, XH-384, XH-385, XH-386, XH-387, XH-388, XH-389, XH-390, XH-391, XH-392, XH-393, XH-394, XH-395, XH-396, XH-397, XH-398, XH-399, XH-400, XH-401, XH-402, XH-403, XH-404, XH-405, XH-406, XH-407, XH-408, XH-409, XH-410, XH-411, XH-412, XH-413, XH-414, XH-415, XH-416, XH-417, XH-418, XH-419, XH-420, XH-421, XH-422, XH-423, XH-424, XH-425, XH-426, XH-427, XH-428, XH-429, XH-430, XH-431, 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XH-557, XH-558, XH-559, XH-560, XH-561, XH-562, XH-563, XH-564, XH-565, XH-566, XH-567, XH-568, XH-569, XH-570, XH-571, XH-572, XH-573, XH-574, XH-575, XH-576, XH-577, XH-578, XH-579, XH-580, XH-581, XH-582, XH-583, XH-584, XH-585, XH-586, XH-587, XH-588, XH-589, XH-590, XH-591, XH-592, XH-593, XH-594, XH-595, XH-596, XH-597, XH-598, XH-599, XH-600, XH-601, XH-602, XH-603, XH-604, XH-605, XH-606, XH-607, XH-608, XH-609, XH-610, XH-611, XH-612, XH-613, XH-614, XH-615, XH-616, XH-617, XH-618, XH-619, XH-620, XH-621, XH-622, XH-623, XH-624, XH-625, XH-626, XH-627, XH-628, XH-629, XH-630, XH-631, XH-632, XH-633, XH-634, XH-635, XH-636, XH-637, XH-638, XH-639, XH-640, XH-641, XH-642, XH-643, XH-644, XH-645, XH-646, XH-647, XH-648, XH-649, XH-650, XH-651, XH-652, XH-653, XH-654, XH-655, XH-656, XH-657, XH-658, XH-659, XH-660, XH-661, XH-662, XH-663, XH-664, XH-665, XH-666, XH-667, XH-668, XH-669, XH-670, XH-671, XH-672, XH-673, XH-674, XH-675, XH-676, XH-677, XH-678, XH-679, XH-680, XH-681, 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B-36: A Procurement Study

Bomber development shifts caused many procurement problems, which affected contractor down to supplier.

Procurement pattern for the Consolidated Vultee B-36 supercontinental bomber is typical of the uncertainties of a major military aircraft contract from design completion to large scale production. This pattern is of interest not only to defense institutions but also to suppliers of engines, armaments, and sub-contract components since every shift in the major aircraft contract is reflected down the line to every supplier concerned with the project.

In the spring of 1941, the then Army Air Corps, and the Navy requested for a 10,000-ton bomber capable of delivering a 10,000 lb. bomb load. Original requirement specified a cruising speed of between 240 and 300 mph. Later an altitude requirement of 40,000 ft. was added. The requirement grew out of the 20-year desire of the Air Corps to produce an intercontinental bomber that would truly be a "little dog of the air."

► **Dense Speed**—This long continued desire was made timely by the military picture facing the United States in early 1941. Defeat at England was not only possible but probable leaving this country to face the Germans across a hostile Atlantic. The intercontinental bomber requirement sought a weapon with which to fight across the Atlantic regardless of who controlled the surface waters.

The Air Corps initiated a design competition on April 11, 1941 and invited Boeing, Vought Co. and Consolidated Aircraft Corp. to submit preliminary design studies. Boeing and Consolidated were then the only two makers of heavy bombers (B-27 and B-24). Later Northrop Aviation Inc. was added to apply its long war principle to the intercontinental bomber requirement and Douglas Aircraft Corp. was invited because of its experience with the supercontinental B-25.

► **Consolidated Wins**—A second competition was called by Gen. H. H. Arnold on Aug. 19, 1941, to push the intercontinental bomber project and on Oct. 5 Consolidated's preliminary design was selected as the most promising for further development. Consolidated received a cost-plus-fee contract on Nov. 15 to build two experimental B-36 intercontinental bombers with a Mustang-based power of 11 D. A six-inch high pressure jet at this time.

Consolidated was merged with Vultee Aircraft Corp. to make the new firm of Consolidated Vultee Aircraft Corp., with Tom Girdler as president.

In its summer of 1941 Girdler talked with the then chief secretary of war, Robert Patterson in Washington regarding an increase in the B-36 order. Girdler told Patterson it was difficult to get subcontractors to work on an experimental order for only two planes, whereas they would be satisfied if the plane had some piece of large scale production. Patterson directed that Consolidated be given a production order for 100 B-36 bombers in addition to the two experimental models. Consolidated got the later of request for the 100-plane order on July 23, 1941 with a price rating of A-1.

► **Priority**—Loomis-Merrifield, the Army Air Forces began to think of the B-36 as an escape from the Pacific war. Plans appeared likely to become untenable as a base for air attack on the Japanese Islands and Pacific advance bases were far out of B-29 range of Japan. Consolidated transferred the B-36 project from its San Diego plant to the new government-financed plant at Ft. Worth causing considerable delay. Wind tunnel tests were delayed until the spring of 1942 because of higher priority projects clogging NACA tunnels.

In the middle of 1942 the Mustang campaign opened bases that were within B-29 range of Japan and the B-36 again was dropped to grandeur at the expense of expedient production of B-29 and B-32 bombers that were now needed in adequate range to strike at Japan from the new bases.

On July 15, 1944 Consolidated was ordered to speed up its B-32 program at expense of B-36 work. When the B-36 letter of intent was replaced by a cost-plus-fee contract on Aug. 18, 1944, it carried no priority rating.

► **Porter Plans**—With the end of the war the Gen. XB-36 had not yet been completed and the entire intercontinental bomber program again came up for re-evaluation. During planning sessions on the composition of the post-war Air Force, AAF generals affirmed their belief that the intercontinental campaign of the war aimed primarily at securing advance bases to bring enemy countries within the then limited range of U.S. air power made the requirement for an intercontinental bomber that would need no advance bases more acute. Formation of four B-36 groups as the nucleus of an intercontinental striking force was approved in part of the 70-group Air Force program in the summer of 1945.

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1. Aircraft Mechanics 11

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In addition, regarding this demand, the AFM plan was revised so that the B-36 was the most efficient supplier for long-range missions when compared with the B-29 and B-45, and was about half as costly to operate as the B-29 in terms of fuel per ton delivered. At the time the change from single wheel to double tandem landing gear was specified to eliminate the need for building special runways to accommodate the landing weight of the B-36.

► **Worth Troubles**—During the summer of 1945 the B-36 project was beset with a variety of troubles at Ft. Worth Air Materiel Command inspectors found faulty workmanship and use of substandard materials on the XB-36. AAF engineers continued dissatisfaction with the management of General P. H. Wright placed his doubts increasingly upon the ability of Convair to change the situation. A strike at Ft. Worth and other lesser labor troubles helped retard B-36 progress.

The XB-36 was completed and made its first test flight on Aug. 8, 1946. The B-36, which incorporated 18 the post-war changes urged by the Air Force, was scheduled for delivery in 1947 and was to serve as the production prototype for the 120 planes on order. Ft. Worth was then engaged in testing its B-36 production.

► **Kennedy Objects**—Fourth evaluation of the B-36 program was finished off by Gen. George Kennedy, head of Strategic Air Command, on December 1945. Kennedy recommended the B-36 could be reduced from 120 to a small service test order. Kennedy felt that the B-36 was inferior to the B-29 in everything except range and endurance. In the discussion, conducted by Kennedy, Air Materiel Command opposed his views on the grounds that most of Kennedy's objections could be eliminated through design and engineering improvements on the B-36. Gen. Spinks then USAF chief of staff, supported AMC in opposing Kennedy.

Only performance of the XB-36 indicated superior value over all the other projects. To meet this problem, Convair proposed, early in 1947, to cancel the Pratt & Whitney VDT power plant in the B-36. This would have meant moving from a pusher to tractor engine installations but would have added performance to bring the B-36 up to 418 mph top speed and 45,000 ft ceiling, retaining the 10,000 mi range and 10,000 lb bombload.

► **VDT procedure**—After initial objections from the Air Force research and development experts, due to financing the VDT project was approved. Funds were to come from a cutback of three planes in the 10,000 order rather than from research and development funds. Later special propeller and supercharger development were financed at

the expense of two more plants. The VDT development was scheduled for installation in a prototype B-36C.

In the summer of 1947 a new group devoted to long considerable effort on procurement of engines for the B-36. The topic of the initial meetings of the board Aug. 19 and 22, 1947, was the future of the B-36. The board decided to continue production of 120 B-36 bombers and use the plant at a special propeller board for delivery of 4000 bombers. The Boeing B-50 was picked to be the workhorse all-purpose bomber of the USAF, and substitute of the B-36. The Boeing B-50, then a 100,000 lb turbo-prop bomber powered by Wright T-35 engines was considered to be the replacement for the B-36 in the special long range atomic bomber. The board also recommended the B-50 VDT proposal and recommended that it be swapped largely because of additional expense and delay in getting the B-36 into service. At the time the board met only the XB-36 was flying and it had back out of customer's interest since March, 1947. Its performance was truly straggling.

► **Convair Troubles**—During the latter half of 1947 Convair began to have a variety of troubles with the B-36 program. Funds originally appropriated for the B-36 program would expire at the end of fiscal 1948 (late) and a new appropriation would be needed from Congress to finance the contract. Air frame production schedules were out of joint with those of engine propeller and accessories manufacturers. Finally, Convair was hard with what to do with its Ft. Worth personnel after completion of the B-36 contract.

Delays at government furnished equipment forced stretching the B-36 production program out over an entire year leaving an additional 17 months of financing needed after the funds already appropriated would expire. The slowed-down production program caused by lack of government-furnished equipment cost the government an estimated \$1 million per month in extra for which Convair had to be reimbursed under the cost plan fixed for contract.

► **Fund Problem**—Meanwhile Convair was getting angry over whether funds could be provided to complete the contract for 120, now down to 95 planes. While Convair could eventually move money paid to subcontractors on a cancelled contract to spend a long, drawn-out process, the situation of the Air Force and the problems of obtaining its own engineering and production personnel would have remained unchanged.

All of these problems are typical of the others faced by both USAF and all aircraft contractors under the present system of military procurement. When appropriations and procurement

planning has to be conducted on an annual basis for projects that require from five to seven years from inception to completion it is impossible to fix it with even a reasonable degree of efficiency in economy.

► **Static Tests**—The first B-36A was flown from Ft. Worth to Wright field for static testing on Aug. 30, 1947. On Sept. 4, Convair presented another proposal for reviving the B-36C VDT project.

It suggested that the VDT power plant be installed on the final 14 airplanes of the contract. Air Materiel Command endorsed the project but pointed out that cost of additional government-furnished equipment required by the VDT installation might total \$15 million and that this would require a diversion of funds from the fiscal 1949 appropriation. Convair's second proposal to shut revivify the first model A and B planes with the VDT was also considered feasible but decision was or served.

The new Convair proposals were evaluated among the Air Force and Weapons Board on Oct. 15. The board, with the exception of Gen. Kenney, approved the proposal. With the approval of Arthur Brown, undersecretary in charge of procurement, the new USAF

Chief of Staff Gen. Hoyt S. Vandenberg approved the board's decision and directed AMC to prepare the B-36C. In the words of the Air Force, "the attempt to make the VDI engine with the B-36 airplane turned out to be a complete failure."

► **Reducing Turbulence**—At the stage the change of aerial refueling method the picture of long range bombardment. The Aircraft and Weapons Board was worried about the size measured by British range (the 390,000 lb B-57) and sought an out to developing aerial refueling for the B-36 to give it intercontinental range.

On Dec. 4, 1947 the YB-36 made its first flight. This was the production prototype, complete with 10 engines (two and three) and equipment. In an area of test flight immediately thereafter the YB-36 reached 41,000 ft., making its first entry at the cruise engine problems had been solved and the airplane was capable of its design altitude.

Meanwhile the VDT application to the B-36 was running into trouble largely because of cost problems estimated at 40,000 ft. As a result of the engineering conference on the subject it was found that the cruising speed was reduced to 50 mph from

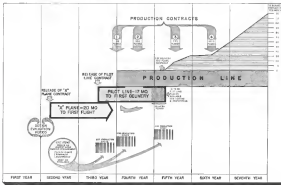
previous estimates and the range by 1000 mi. On Aug. 21, 1948, Gen. McNamara, then AFM commander, recommended cancelling the B-36C project since the B-36C appeared to be inferior to the B-36 in both speed and range. The B-36 model was powered by 1500 hp P&W R-4600-43 piston engines.

► **New Evaluation**—Cancellation of the VDT program could mean a new revision of the entire B-36 program. The subject made the record of the Air Staff, finding Gen. Kenney still opposed to building anything but a few B-36s for possible use in aerial tankers for the B-36.

He was supported by Gen. Norstad who recommended building just enough B-36s to outfit one bomb group as an experimental use. Norstad's recommendation would have cut the B-36 contract back to 51 planes (going 18 model B's plus the model A converted for conversion to aerial tankers). As an indication of the entire B-36 program was then undertaken by the Inspector General.

The B-36 situation came to a head in a conference at Air Secretary W. Stuart Symington's office attended by Brown, Vandenberg, Fairchild and McNamara in May 13. Then decided

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Renegotiation

Problem affects only companies with gross of over \$100,000.

Renegotiation—the move of profits across from large business dealings with the government—continues to be a matter of concern because of the larger annual contracts, under 1945, 1949 and 1950 fixed-year procurement.

All contracts for aircraft and related material and sub-contracts amounting to more than \$100,000 are subject to renegotiation.

• The great business of the contractor or sub-contractor under these contracts amounts to more than \$100,000 in a fiscal year, and

• The contracts were signed after May 21, 1946, after the date of the law (Renegotiation Act of 1946).

• Forget Bi-Swift contracts who do less than \$100,000 worth of present annual business within any single fiscal year therefore are, generally speaking, kept clear of renegotiation problems and they grow into a larger business category.

Power for administering renegotiations have been delegated by the Secretary of Defense to a Military Renegotiation Policy and Review Board, headed by Frank L. Roberts, chairman, with offices in the Pentagon Building (Room 4B337).

• Advance Johnson—The board is made up of the three chairmen of three sub-committee renegotiation boards, one for each of the Armed Services. The top board acts as advisors to Secretary of Defense Louis Johnson on renegotiation matters, and acts as review on appeals by contractors on decisions by the service boards. It also assigns contractors to whether service board has passed on over them, and in case of great procurement, decides which service board shall handle a specific case.

The Policy and Review Board needs not report forms resembling income tax return forms, to companies which it has reason to believe have done enough business in 1948 or 1949 fiscal years to warrant renegotiation.

• Board Letter—A letter accompanying the forms which is part

The purpose of that letter is to obtain information which will enable the Military Renegotiation Policy and Review Board to determine whether renegotiation proceedings should be conducted with your concern.

If you had your receipts on accounts from renegotiable business which agree

with \$100,000 or more in your latest fiscal year, the filing of the required Standard Form of Contractor's Report is required. In such case this report must be filed on or before the last day of the 180 days following the close of your fiscal year.

If your receipts or amounts from renegotiable business did not aggregate \$100,000 for your fiscal year you are not subject to renegotiation for such year and the Standard Form of Contractor's Report need not be filed. It will be very helpful to the Board however to have such fact reported on the second form entitled, Statement of Contractor, Non-applicability of the Renegotiation Act of 1946.

Notice that letter has your reply will constitute the commencement of renegotiation proceedings. Upon receipt of the Standard Form of Contractor's Report, a determination will be made as to whether such proceedings are necessary. The filing of this report sets off the requirements.

• Paragraph 422.222 MRR, goes further requirements about the form and is supplied in the "let" mailed to the contractor together with other applicable regulations and the laws.

• Five Months—Five month deadline indicated in the letter for filing the report is not an absolute one but can be extended by the board if special circumstances are cited by the contractor.

Some time ago the board announced that it had granted an extension generally to contractors whose fiscal year ended between May 21, 1946 and Jan. 31, 1949. The extension permitted filing of reports anytime before July 31, 1949.

• Audit Books—The service boards and the top board have authority to audit the books and records of any contractor subject to the act, if they decide it is necessary after examining last fiscal year's records.

Scope of the renegotiation is indicated by the fact that the board can act for up to 1200 companies for reports for the 1949 fiscal year, although only contracts let after May 21 of that year were subject to renegotiation.

• Report Form—The contractor's report form is a statement of his estimated income for the year, estimated profits, product sold or service rendered, and it to be accompanied by his income tax return, a profit and loss statement, statement of surplus and balance sheet at the close of his fiscal year.

In an effort to let the contractor truly know what contracts are considered as subject to renegotiation the Roberts board periodically publishes list of contractors and contracts which are believed to fall under that category. They

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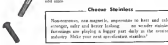
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Procurement Bibliography

Individuals and firms interested in military procurement will find much useful information about government contracts and purchasing in the following publications, which may be obtained as indicated.

- **A Guide for Selling to the United States Air Force, 1949**, obtainable from the Contractors' Relations Branch, Procurement Division, Air Materiel Command headquarters, Wright-Patterson AFB, Dayton, Ohio or at the Procurement Information Center, Pentagon, Washington 25, D. C.
- **Purchased Items and Purchasing Location of the Department of the Army, July, 1949**, a Pamphlet designed to assist small business, obtainable from the Procurement Information Center, Pentagon, Washington 25, D. C.
- **Buying A Navy**, a guide showing Navy procurement procedure, obtainable from U. S. Navy or Procurement Information Center, Washington 25, D. C. (New second edition in preparation.)
- **List of Principal Purchasing Offices of Army, Navy, Air Force and Marine Corps**, obtainable from Procurement Information Center, with notification as to which office procures the types of products listed in letter of inquiry.
- **Index of USAF Catalog of Items purchased and copies of selected catalogs of items, classified as to types**, obtainable from Air Materiel Command headquarters, Wright-Patterson AFB, Dayton, Ohio. Attention MCPF5852.
- **Armed Services Procurement Regulations, Parts 1-15**, obtainable from Superintendent of Documents, Government Printing Office, Washington 25, D. C.
- **Federal Register**, which contains regulations of government agencies including procurement regulations, as they are promulgated, obtainable from Superintendent of Documents, Government Printing Office, Washington 25, D. C.
- **Public Law 415**, the Armed Services Procurement Act, 80th Congress, 1947, is still the basic law governing military procurement, is obtainable free from House Document Room, Capitol, Washington, D. C.
- **Index of Specifications and Requisitions Approved for U. S. Air Force Procurement**, obtainable from Procurement Division, Air Materiel Command headquarters, Wright-Patterson AFB, Dayton, Ohio. (Note: No action will be taken on requests for unstated information from agencies which the Government considers not authorized to receive such information.)
- **Military Requisitioning Regulations under Requisition Act of 1940, Part 425, Determination of Requisitionable Business and Corps**, obtainable from the Military Requisitioning Policy and Review Board, Office of the Secretary of Defense, Washington 25, D. C.



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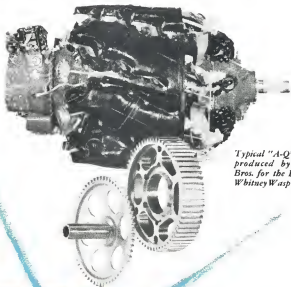


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